



**Meghalaya State Electricity Regulatory Commission**

**Aggregate Revenue Requirement for Multi Year ARR  
for control period FY 2018-19 to FY 2020-21**

**&**

**Generation Tariff**

**For**

**FY 2018-19**

**Meghalaya Power Generation Corporation Limited**

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## Abbreviations

A&G	Administration & General
ARR	Aggregate Revenue Requirement
APTEL	Appellate Tribunal For Electricity
CAGR	Compound Annual Growth Rate
CD	Contract Demand
CoD	Commercial Operation Date
CERC	Central Electricity Regulatory Commission
CGS	Central Generating Stations
CoS	Cost of Supply
CWIP	Capital Work In Progress
DE	Debt Equity
EHT	Extra High Tension
FY	Financial Year
GOM	Government of Meghalaya
GFA	Gross Fixed Assets
HT	High Tension
KV	Kilo Volt
KVA	Kilo Volt Amps
KVAh	Kilo Volt Ampere hour
KW	Kilo Watt
kWh	kilo Watt hour
LT	Low Tension
MVA	Million Volt Amps
MU	Million Unit
MW	Mega Watt
MYT	Multi Year Tariff
MeECL	Meghalaya Energy Corporation Limited
MePGCL	Meghalaya Power Generation Corporation Limited
MePDCL	Meghalaya Power Distribution Corporation Limited
MePTCL	Meghalaya Power Transmission Corporation Limited
MSERC	Meghalaya State Electricity Regulatory Commission
ROE	Return on Equity
SLDC	State Load Despatch Centre
SBIMCLR	State Bank of India Marginal Cost Lending Rate





3. In compliance with Electricity Act 2003 the Commission had notified MSERC (Conduct of Business) Regulations 2007 and MSERC (Multiyear Tariff) Regulations 2014. These Regulations cover the procedure for filing the tariff application, methodology for determining the tariff and recovery of charges from the beneficiaries as approved.
4. The Government of Meghalaya vide its Power Sector Reforms Transfer Scheme 2010 transferred the assets, properties, rights, liabilities, obligations and personnel of the erstwhile MeSEB to four corporations namely (i) Meghalaya Energy Corporation Limited (MeECL), the holding company, (ii) Meghalaya Power Generation Corporation Limited (MePGCL), the generation utility, (iii) Meghalaya Power Distribution Company Limited (MePDCL), the distribution license and (iv) Meghalaya Power Transmission Corporation Limited (MePTCL), the transmission licensee. This transfer scheme is effective from 01.04.2012 and from that date all companies/licensees had to start independent functioning. However, the Licensees have commenced functioning as independent entities from 01.04.2013. The petitioner has informed that the Government of Meghalaya issued further notification on 29.04.2015 notifying the revised statement of assets and liabilities as on 01.04.2012 to be vested in MeECL and re-vested in MePGCL.
5. (a) This petition has been filed by MePGCL for determining the ARR for the control period FY 2018-19, FY 2019-20, FY 2020-21 and determination of tariff of all the power stations for FY 2018-19. Keeping in view the desirability for timely completion of tariff process for the next year FY 2018-19, the Commission provisionally admitted the petition on 04.12.2017 for further processing, subject to the condition that the petitioner shall furnish any further information/clarification as deemed necessary by the Commission during the processing of the petition.  
  
(b) Earlier Commission had approved the Business Plan filed by the MePGCL for the MYT Control period FY 2018-19 to FY 2020-21 on 15.11.2017.

6. The Commission further directed the petitioner to publish public notice in accordance with Tariff Regulations detailing their salient features of the ARR petition and proposals filed by it for financial year 2018-19, for objections/comments by stake holders and public at large.

According the MePGCL has published the notice and sought for the objections/comments within 30 days from stakeholders and general public.

The petitioner was also directed to place the petition on its website and its Headquarter/ other offices for inspection or making relevant extracts by the members of the public.

7. After having deliberations with the utilities staff, Advisory Committee meeting and public hearing, the Commission on the basis of records submitted by the licensee passes this order for determining Aggregate Revenue Requirement (Annual fixed charges )for FY 2018-19, FY 2019-20, FY 2020-21 for all generating stations of MePGCL. For the sake of convenience and clarity, this Order has been divided into following chapters.

**Chapter 1** - Introduction and brief history

**Chapter 2** - Summary of ARR for Multi Year Tariff control period & Determination of Generation tariff for FY 2018-19

**Chapter 3** - Public Hearing process, Stakeholder's objections and Petitioner's response and Commission's comments

**Chapter 4** - Commission's Approach

**Chapter 5** - Commission's Analysis, Scrutiny and Conclusion.

**Chapter 6** - Directives

8. The proceedings of tariff orders are governed under the section 61 and 62 of the Electricity Act 2003 and the regulations made under section 181 of the Act. For renewable energy projects the Commission has made separate regulations and considered the same at appropriate place. The Commission requires the MePGCL and

its holding company to file statement of accounts duly audited for FY 2014-15 to 2016-17 for appropriation of any losses/gains in the present order. However, keeping in view the need for completion of the tariff proceedings within the time frame as allowed in the Regulations and the Act, the Commission admitted the case and started the proceedings.

9. The Commission received some objections and sent them to MePGCL for their response. The Commission received the responses and considered the suggestions of consumers, members of the advisory committee and suggestions received during the public hearing. The Commission, to ensure transparency in the process of Tariff determination and for providing proper opportunity to all stake holders and general public for making suggestions/objections on the Tariff petition and for convenience of the consumers and general public across the state, decided to hold a public hearing at the headquarters of the state. Accordingly the Commission held public hearing at Shillong on 8<sup>th</sup> March 2018.
10. The Proposal of MePGCL was also placed before the State Advisory Committee in its meeting held on 15<sup>th</sup> February 2018 and various aspects of the Petition were discussed by the Committee. The Commission took the advice of the State Advisory Committee on the ARR and Tariff Petition of MePGCL for the 2<sup>nd</sup> control period FY 2018-19 to 2020-21 during the meeting of the Committee.
11. The Commission took into consideration the facts presented by the MePGCL in its petition and subsequent various filings, the suggestions/objections received from stakeholders, consumers' organizations, general public and State Advisory Committee and response of the MePGCL to those suggestions/objections.
12. The Commission taking into consideration all the facts which came up during the public hearing and meeting of the State Advisory Committee, has approved the ARR for control period FY 2018-19 to 2020-21 and Generation tariff for FY 2018-19.

13. The Commission has reviewed the directives issued earlier in the Tariff Orders for FY 2015-16 to 2017-18 and noted that some of the directives are complied with and some are partially attended. The Commission has dropped the directives which have been complied with and the remaining directives are consolidated and fresh directives are added.
14. Accordingly, the Commission proceeded for determination of tariff for FY 2018-19 on the basis of available information and inputs received and in accordance with Commission's regulations for all Generating stations.
15. The Commission accepted the proposal of the Corporation to continue with the provisional tariff for 2 X 20 MW NUHEP till determination of final tariff. MePGCL shall expedite filing of Petition for approval of Capital Cost with all the statutory sanctions for determination of final tariff of NUHEP.
16. The MePGCL should ensure implementation of the tariff order from the effective date for the generating stations of the state within a week and compliance of the same shall be submitted to the Commission.
17. This order shall be effective from 1<sup>st</sup> April, 2018 and shall remain in force till 31<sup>st</sup> March, 2019 or till the next Tariff Order of the Commission.

Sd/-

WMS Pariat IAS (Retd)  
Chairman  
MSERC

## 1. Introduction

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### 1.1 Background

This petition has been filed by Meghalaya Power Generation Corporation Limited (MePGCL). The power supply industry in Meghalaya State had been under the control of erstwhile MeSEB with effect from 21.01.1975. On 31.03.2010, the Government of Meghalaya issued a notification for the power sector reform and transferred the assets, liabilities, rights and obligations to four companies namely, Meghalaya Energy Corporation Limited (MeECL), the holding company, the Meghalaya Power Distribution Company Limited (MePDCL), the Distribution utility, Meghalaya Power Generation Corporation Limited (MePGCL), the Generation utility and Meghalaya Power Transmission Corporation Limited (MePTCL), the Transmission utility. In a subsequent amendment to the transfer scheme notified on 31.03.2012 has set the date of transfer as 01.04.2012. Subsequently the Government issued further notification on 29.04.2015 amending the statement of assets and liabilities as on 01.04.2012 to be vested in the MeECL and re-vested in MePGCL. However, these corporations have commenced the business from 01.04.2013 and Statement of Accounts are maintained separately.

A power purchase agreement for supply of power to MePDCL has been signed between generating corporation and distribution licensee. The financial statement and the balance sheet for FY 2012-2013 are audited and the details of the assets and liabilities are limited to the numbers given in the transfer scheme. The Commission has from time to time directed the utility for completing audit of the accounts up to FY 2016-17 so that the true up exercise of the independent corporations can also be undertaken and losses/gains appropriated.

The Commission has admitted the Petition on 04.12.2017 provisionally.

## **1.2 Meghalaya Power Generation Corporation Limited**

The Government of Meghalaya has unbundled and restructured the Meghalaya State Electricity Board with effect from 31<sup>st</sup> March, 2010 into the Generation, Transmission and Distribution businesses. The erstwhile Meghalaya State Electricity Board was transformed into four successor entities, viz:

1. Generation : Meghalaya Power Generation Corporation Limited (MePGCL)
2. Transmission : Meghalaya Power Transmission Corporation Limited (MePTCL)
3. Distribution : Meghalaya Power Distribution Corporation Limited (MePDCL)
4. Meghalaya Energy Corporation Limited (MeECL) a holding company.

The Government of Meghalaya issued further notification on 29.04.2015 notifying the revised statement of assets and liabilities as on 1<sup>st</sup> April, 2012 to be vested in Meghalaya Energy Corporation Limited. As per the said notification issued by the Government of Meghalaya, a separate corporation “Meghalaya Power Generation Corporation Limited” (MePGCL) was incorporated for undertaking Generation Business.

## **1.3 Meghalaya State Electricity Regulatory Commission**

Meghalaya State Electricity Regulatory Commission (herein after referred to as “MSERC” or the Commission) is an independent statutory body constituted under the provisions of the Electricity Act (EA), 2003. The Commission is vested with the authority of regulating the power sector in the state inter alia including determination of tariff for electricity consumers. The MSERC has notified the terms and conditions for determination of tariff regulations on multiyear basis which gives the procedure and requirement of filing of the ARR for ensuing year. Similarly, the Commission has also notified, MSERC (Terms and Conditions for determination of Tariff for Generation from Renewable Energy Sources) Regulations, 2014.

#### **1.4 Multiyear Tariff Regulations**

Regulation 11 of the MSERC Tariff Regulations 2014, provides that the Commission shall undertake the true up of previous year's expenses and revenues approved by the Commission with audited accounts made available to the Commission subject to prudence check including pass through of impact of uncontrollable factors.

Regulation 18 provides that each Licensee shall file a tariff petition on or before 30<sup>th</sup> November each year with the Commission which includes statement containing business plan for the control period, calculation of the expected aggregate revenue from charges under it currently approved tariff and expected cost of providing service. The information should also contain business plan showing ongoing projects that will spill over into the control period and new projects that will commence in the control period. However, the business plan needs to be submitted three months prior to the filing of the ARR and tariff application.

#### **1.5 Admission of the Petition and Public hearing process**

The MePGCL has submitted the current petition for determination of Multiyear Aggregate Revenue Requirement (ARR) for 2<sup>nd</sup> Control Period FY 2019 to 2021 including determination of tariff for FY 2018-19. The Commission undertook the technical validation of the Petition and admitted the Petition Provisionally on 04.12.2017.

Regulation 17 of the Tariff Regulations, 2014 provides for giving adequate opportunities to all stake holders and general public for making suggestions/objections on the Tariff Petition as mandated under section 64(3) of the Electricity Act 2003. In the admission order the Commission has directed the Generating Corporation to publish a notice in leading newspapers widely circulated in the State and seek comments from general public and other stake holders. MePGCL has published the Notice in the following newspapers and sought comments within 30 days from the general public.

**Table 1.1: Details of Public Notice**

Sl. No	Name of News paper	Language	Date of Publication
1	The Shillong Times (Shillong issue)	English	7 <sup>th</sup> & 8 <sup>th</sup> December 2017
2	The Shillong Times (Tura issue)	English	8 <sup>th</sup> & 9 <sup>th</sup> December 2017
3	U Nongsain Hima	Khasi	7 <sup>th</sup> December 2017
4	Salantini Janera	Garo	8 <sup>th</sup> & 9 <sup>th</sup> December 2017

The Petitioner has also placed the public notice and the Petition in the website ([www.meecl.nic.in](http://www.meecl.nic.in)) for inviting objections and suggestions on its petition. The interested parties/stakeholders were asked to file their objections/suggestions on the petition on or before 22nd January 2018.

MePGCL/Commission received some objections/suggestions from Consumers/ consumer organizations. The Commission examined the objections/ suggestions received and fixed the date for public hearing on MePGCL petition to be held on 8<sup>th</sup> March 2018. Communication has also been sent to the objectors to take part in the public hearing process for presenting their views in person before the Commission. The Public hearing was conducted at Commission's office in Shillong as scheduled. The Commission also held meeting with State Advisory committee on 15<sup>th</sup> February 2018. The record note of the 21<sup>st</sup> State Advisory Committee meeting is on Page No.90-91 given in Annexure-I of this order.



## 2. Summary of 2<sup>nd</sup> Multi Year ARR for FY 2018-19 to FY 2020-21 and determination of Generation Tariff for FY 2018-19

### 2.1 Back Ground:

#### Existing Stations

MePGCL started functioning as an independent commercial entity from 1<sup>st</sup> April 2012. The power generated by the MePGCL stations is sold to MePDCL as per the power purchase agreements signed, and energy is supplied to MePDCL at MePTCL interface points. At present MePGCL is having 8 Hydro Generating stations, 5 of these are storage type and 3 are Run of River stations. The details about existing stations are mentioned in table 2.1:

**Table 2.1: Details of existing stations**

Sl. No	Station	Type	No of Units/ Capacity	COD	Capacity (MW)
1	Umiam Stage-I	Storage/ Pondage	4*9 MW	FY 1966	36
2	Umiam Stage-II		2*10 MW	FY 1971	20
3	Umiam Stage-III		2*30 MW	Unit 1: FY 1979 Unit 2: FY 1979	60
4	Umiam Stage-IV		2*30 MW	FY 1993	60
5	Umtru Power Station	ROR	4*2.8 MW	Unit 1-3: FY 1958 Unit 4: FY 1969	11.2
6	Sonapani HEP		1.5 MW	FY 2010	1.5
7	Leshka HEP		3*42 MW	Unit 1 & 2: FY 2013 Unit 3: FY 2014	126
8	New Umtru	Pondage	2 * 20	Unit 1 & 2 FY 2018	40
	<b>Total</b>				<b>354.7</b>

### 2.2 Performance and Operational Norms

#### 2.2.1 Existing Generating Capacity

It was intimated by the MePGCL that the initial installed capacity when the erstwhile Meghalaya State Electricity Board (MeSEB) was bifurcated from the Assam State Electricity Board (ASEB) in 1975 was 65.2 MW. With the commissioning of Umiam Stage-III HEP (1979), Stage-IV HEP (1992), Sonapani Mini Hydel 1.5 MW (2009),

upgrading of Umiam Stage- II (from 18MW to 20 MW in 2012) and commissioning of MLHEP 3 X 42 MW in 2013, the installed capacity increased to 314.7 MW.

All the Generating Stations except Sonapani Mini Hydel Project and Leshka, as indicated in the Table 2.2, are hydel power stations with the main reservoir at Umiam for all the stages. Therefore, all these stages depend mainly on water availability at the Umiam reservoir. The total installed capacity of MePGCL projects as on 31<sup>st</sup> July 2017, was as shown in the table 2.2.

**Table 2.2 Installed Capacity of MePGCL**

S. No	Name of the Station	No. of Units	Capacity (MW)	Total Capacity (MW)	Year of Commissioning
1	Umiam Stage-I	I	9	36	21.02.1965
		II	9		16.03.1965
		III	9		06.09.1965
		IV	9		09.11.1965
2	Umiam Stage- II	I	10	20	22.07.1970
		II	10		24.07.1970
3	Umiam Stage- III	I	30	60	06.01.1979
		II	30		30.03.1979
4	Umiam Stage- IV	I	30	60	16.09.1992
		II	30		11.08.1992
5	Umtru Power Station	I	2.8	11.2	01.04.1957
		II	2.8		01.04.1957
		III	2.8		01.04.1957
		IV	2.8		12.07.1968
6	Sonapani Mini Hydel	I	1.5	1.5	27.10.2009
7	MLHEP (Leshka)	I	42.	126	01.04.2012
		II	42		01.04.2012
		III	42		01.04.2013
8	New Umtru				01.09.2017
	<b>Total</b>			<b>314.7</b>	

MePGCL had a total installed Capacity of 314.70 MW with all the generating stations functional in FY 2015-16, except for 1 (one) unit in Umiam Stage III and all units in Umtru Power Station. There was burning of stator, 11 KV UAT, damage of PRV and overhauling works which prevented one unit of Umiam Stage III from generating. The Units of Umtru suffered due to construction of New Umtru HEP and siltation of hydraulic works which necessitated the cleaning of the water conductor system and draining of penstock.

### 2.3 Historical Yearly Generation for Last Five Years

All the Generating stations being hydro, the annual generation depends on the rainfall for the year. The yearly generation for last 5 years for the generating stations is shown in the table 2.3:

**Table 2.3 Historical Energy Generation (MU)**

S. No	Station	FY 2013	FY 2014	FY 2015	FY 2016	FY 2017
1	UMIAM Stage-I	102.87	79.10	90.4	114.06	96.63
2	UMIAM Stage –II	50.40	41.35	46.00	58.26	50.23
3	UMIAM Stage-III	132.00	133.57	113.11	117.50	65.30
4	UMIAM Stage-IV	185.25	174.86	162.72	185.01	166.12
5	Umtru Power Station	30.40	20.99	15.27	1.41	0.00
6	Sonapani HEP	7.2	5.4	5.75	6.29	7.633
7	Leshka HEP	198.37	413.22	409.38	445.93	443.85
	Total	706.49	868.49	842.62	928.46	829.76

### 2.4 New Generation Capacity

In addition to the existing capacity, MePGCL is also currently executing works of Lakroh & Ganol Mini Hydel Projects which are proposed for commissioning in FY 2018-19

**Table 2.4: Details of upcoming Stations**

Sl. No	New Station	Design Energy (MU)	Capex Outlay (Rs. Cr)	Debt (Rs. Cr)	Equity (Rs. Cr)	Grant (Rs. Cr)	Year of Commissioning (MM/YY)
1	Ganol SHP	67.09	356.42	146.90	62.96	146.57	2018
2	Lakroh MHP	11.01	20.48	6.46	2.77	11.25	Sept.2018

### 2.5 Operational Norms

The following sections outline details of operational norms for computation of energy generation for FY 2015-16 based on MYT Regulations, 2014 or past trend as the case may be.

**Table 2.5: Normative Annual Plant Availability Factor**

S. No	Station Particular	Norm
a)	Storage and Pondage type plants : where plant availability is not affected by silt and	
i)	With lead variation between Full Reservoir Level( FRL) and Minimum Draw Down Level (MDDL) of up to 8 %	90 %
ii)	With head variation between FRL and MDDL of more than 8 %	$(\text{Head at MDDL} / \text{Rated Head}) \times 0.5 + 0.2$
b)	Pondage type plant	Where plant availability is significantly affected by silt- 85 %
c)	Run –of River type plant	NAPAF to be determined plant wise based on 10- day design energy data

**Petition as submitted by the MePGCL :**

- i) A further allowance may be made by the Hon’ble Commission under special circumstances, e.g. abnormal silt problem or other operating conditions, and known plant limitations.
- ii) A further 5 % may be allowed for difficulties in the north East Region
- iii) In case of new Hydroelectric project the developer shall have the option of approaching the Honorable Commission in advance for further concession to the above norms.
- iv) In the Tariff order for FY 2015-16, the Honorable Commission has not taken any view on the computation of Normative Annual Plant Availability Factor (NAPAF) of all generating stations without knowing the technical details of each plant which should also be duly verified. For the purpose of capacity charges, the Honorable Commission has approved recovery of fixed charges in 12 equal monthly installments. The NAPAF’s for all generating stations computed as per the MYT Regulations, 2014 are summarized in table 2.6.

**Table 2.6: NAPAF's for all Generating stations**

Station	As per actual (%)
Umiam Stage- I	59.83
Umiam Stage-II	85.00
Umiam Stage-III	63.67
Umiam Stage-IV	61.79
Umtru	80.00
Sonapani	45.00
MLHEP	39.00

**Table 2.7: Auxiliary Consumption and Transformation Loss:**

Sl. No	Station Particular	Norm
a)	Surface hydroelectric power generating stations with rotating exciters mounted on the generator shaft	0.7 % of energy generated
b)	Surface hydroelectric power generating stations with static excitation system	1.0 % of energy generated
c)	Underground hydroelectric power generating stations with rotating exciters mounted on the generator shaft	0.9% of energy generated
d)	Underground hydroelectric power generating stations with static excitation systems	1.2% of energy generated

Transformation Loss as per norm is 0.5 % of energy generated.

The Honorable Commission in the MYT Tariff Order for FY 2015-16 have approved auxiliary consumption and transformation losses as per the following Table.

**Table2.8: Auxiliary Consumption and Transformation Loss approved by the Honorable Commission**

Name of the Plant	Auxiliary Consumption	Transformation Loss (%)	Total Loss (%)
Umiam Stage- I	0.7	0.5	1.2
Umiam Stage-II	0.7	0.5	1.2
Umiam Stage-III	0.7	0.5	1.2
Umiam Stage-IV	1.0	0.5	1.5
Umtru	0.7	0.5	1.2
Sonapani	0.7	0.5	1.2

**The Auxiliary consumption and Transformation Losses, as actual for MePGCL for FY 2015-16 are furnished in table 2.9:**

**Table 2.9: Auxiliary consumption and Transformation losses**

Name of the Plant	Auxiliary Consumption Transformation Losses (%)
Umiam Stage- I	1.04
Umiam Stage-II	0.65
Umiam Stage-III	0.71
Umiam Stage-IV	0.66
Umtru	1.15
Sonapani	0.74
Leshka	0.68

Thus MePGCL has operated its plant efficiently and under the norms specified by the Honorable Commission has been able to limit auxiliary consumption for plants below the limit set by the Honorable Commission in the tariff order for FY 2015-16.

## 2.6 Design Energy- Existing Generating Stations

The design energy as approved by the Honorable Commission for MePGCL 's power stations in MYT Order for FY 2015-16 is provided in table 2.10.

**Table 2.10: Design Energy as approved by MSERC in Tariff Order FY 2015-16**

Name of the Power station	Design Energy (MU)
Umiam Stage- I	116.29
Umiam Stage-II	45.51
Umiam Stage-III	139.4
Umiam Stage-IV	207.5
Umtru	39.01
Mini Hydel (Sonapani)	5.5
Leshka	486.23

## 2.7 Computation of Net Energy Generation- Existing Stations:

The computation of Hydro power generation requires Design Energy, Capacity Index, Details of Reservoir levels, Head Details, Past Availability details, features of the hydro power plants in terms of type of plant, type of excitation, etc. which are provided in the table 2.11.

**Table 2.11: MePGCL Plant Technical Details**

Particulars	Umtru	Umiam-I	Umiam-II	Umiam-III	Umiam-IV	Mini Hydel Sonapani	Leshka HEP
<b>Type of Station</b>							
Surface/ Under Ground	Surface	Surface	Surface	Surface	Surface	Surface	Surface
Purely RoR/ Pondage/ storage	RoR	Storage	Power Channel (Pondage)	Pondage	Pondage	RoR	RoR
Peaking/ Non Peaking	Non Peaking	Non Peaking	Non Peaking	Non Peaking	Non Peaking	Non Peaking	Non Peaking
Noof Hours Peaking	NA	NA	NA	NA	NA	NA	NA
OverLoad Capacity (MW) and Peaking	NIL	NIL	NIL	NIL	NIL	NIL	NIL
<b>Type of Excitation</b>							
Rotating exciters on Generator	Rotating exciters on Generator	Rotating exciters on Generator	Rotating exciters on Generator	Rotating exciters on Generator	NA	Rotating exciters on Generator	NA
Static Excitation	NA	NA	NA	NA	Static Excitation	NA	Static Excitation

The stations Net Generation approved for FY 2015-16 and actual of MePGCL for FY 2015-16 are provided in the table 2.12:

**Table 2.12: Net Generation approved and Actuals for FY 2015-16**

Sl No	Name of the Power station	Approved by Honorable Commission in Tariff Order FY 2015-16						Actual MePGCL FY 2015-16			
		Gross Generation (MU)	Aux. Cons (%)	Transformation Loss (%)	Total Loss(Aux + Transformation (%))	Aux Cons & Transformation Loss (MU)	Net Generation (MU)	Gross Generation (MU)	Total Loss(Aux + Transformation (%))	Aux Cons & Transformation Loss (MU)	Net Generation (MU)
1	Umiam - I	116.29	0.70	0.50	1.20	1.40	114.89	114.06	1.04	1.19	112.87
2	Umiam -II	45.51	0.70	0.50	1.20	0.55	44.96	58.26	0.65	0.38	57.88
3	Umiam -III	139.4	0.70	0.50	1.20	1.67	137.73	117.5	0.71	0.84	116.66
4	Umiam e-IV	207.5	1.00	0.50	1.50	3.11	204.39	185.01	0.166	1.22	183.79
5	Umtru Power Station	39.01	0.70	0.50	1.20	0.47	38.54	1.41	1.15	0.06	1.35
6	MiniHydel (Sonapani)	5.5	0.70	0.50	1.20	0.07	5.43	6.29	0.74	0.05	6.24
7	Leskha							445.93	0.68	3.04	442.89
	<b>Total</b>	<b>553.21</b>				<b>7.26</b>	<b>545.95</b>	<b>928.46</b>		<b>6.77</b>	<b>921.69</b>

## 2.8 Separate Petition for MePGCL’s Generating Plants

As per the recent tariff orders as well as applicable regulations MePGCL needs to file separate petitions for the different generating plants. In accordance with the directives of the Honorable Commission and MSERC MYT Regulations 2014, the utility is filing a separate petition for,

- 1) Old plants including Sonapani
- 2) Myntdu Leshka Power Plant

Due to non- availability of segregated accounts for Old Plants and Sonapani, MePGCL is filing a petition for MLHEP and MePGCL Old plants separately in the tables below.

**Table2.13: Summary of ARR for MLHEP for Control Period FY 2018-19 to 2020-21**

(Rs. Cr)						
S No	Particulars	FY 2016-17 (Provisional)	FY 2017-18 ( Estimated)	FY 2018-19 (Projected)	FY 2019-20 (Projected)	FY 2020-21 (Projected)
1	Interest on Capital Loan	78.29	64.81	49.27	40.50	34.81
2	Depreciation	61.10	63.01	63.13	63.24	63.24
3	O & M expenses	30.23	31.96	33.79	35.72	37.76
4	Interest on Working Capital	6.37	6.19	5.93	5.83	5.81
5	Return on Equity	53.73	53.73	53.74	53.75	53.75
6	SLDC Charges					
7	Net Prior Period Items	0.01				
	Total Annual Fixed Cost	229.72	219.70	205.85	199.04	195.37
8	Less: Non-Tariff Income	0.03	0.0310	0.0341	0.0375	0.0412
	Net Annual Fixed Cost	229.70	219.67	205.82	199.00	195.33

MePGCL prays before Hon’ble Commission to kindly approve the Annual Fixed cost of MLHEP for the 2<sup>nd</sup> MYT Control period FY 2018-19 to FY 2020-21 as submitted above.



Table 2.14: Summary of AFC for MePGCL Old Plants for Control period (Projected)

S. No	Particulars	(Rs. Cr)		
		FY 2018-19 (Projected)	FY 2019-20 (Projected)	FY 2020-21 (Projected)
		Old Plants + Sonapani (1-2)	Old Plants + Sonapani (1-2)	Old Plants + Sonapani (1-2)
1	Interest and Finance charges	33.28	43.80	57.20
2	Depreciation	12.34	15.49	11.62
3	O & M expenses	83.37	87.80	92.59
4	Employee expenses	100.54	106.00	11.87
5	R & M expenses	9.78	10.32	10.88
6	A & G expenses	6.83	7.21	7.60
7	Interest on working Capital	7.59	8.21	8.89
8	Return on Equity	58.50	61.56	70.11
9	SLDC Charges	1.21	1.27	1.33
10	Net Prior Period Items/ Provision for Bad debts	25.00	25.00	25.00
<b>11</b>	<b>Total Annual Fixed cost</b>	<b>221.29</b>	<b>243.13</b>	<b>266.73</b>
12	Less: Non- Tariff income	13.13	14.44	15.88
<b>13</b>	<b>Net Annual Fixed Cost</b>	<b>208.16</b>	<b>228.69</b>	<b>250.85</b>

MePGCL submits before Hon'ble Commission to kindly approve the Annual Fixed Cost of Rs.208.16 Crore, Rs. 228.69 Crore, Rs. 250.85 Crore for FY 2018-19, FY 2019-20 and FY 2020-21 respectively for MePGCL's Old Stations.

## 3. Public Hearing Process

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### 3.1 Public Hearing Process

Section 64 of Electricity act 2003 mandates the Generation licensee to publish the Tariff petition in an abridged format in the leading newspapers inviting the objections/suggestions on the Tariff petition from the stakeholders.

In pursuance of the publication of the Tariff petition in the leading newspapers, the following objections and suggestions from across the state of Meghalaya are received.

The response of the licensee on the objections and suggestions received from the stakeholders and the Commission's remarks are analyzed below.

#### **Objections/ Suggestions of Stakeholders on Generation Petition for MYT FY 2018-19 TO 2020-21 and Determination of Tariff for FY 2018-19**

##### **Name of Objector: Byrnihat Industries Association**

M/s. Byrnihat Industries Association (BIA) has filed the following objections on the petition filed by MePGCL seeking Multi Year Generation business for FY 2018-19 to FY 2020-21 and Determination of Generation Tariff for FY 2018-19.

##### **1. Cost of Supply**

###### **Objection**

M/s. BIA has stated that cost of electricity has increased substantially over the years rendering the operation of industries in the state more and more unviable.

###### **Response of MePGCL**

MeECL and its subsidiary companies, including MePGCL, are going through an acute financial crisis and need appropriate tariff to bridge the gap between cost of supply and revenue. The cost of generation Business is also increasing with the increase in generation capacity, pay increase of employees, inflation etc. The generation tariff is not reflective of the actual cost as there was delay in availability of audited accounts

after restructuring of the new companies. After availability of actual information the revision of tariff is done every year by the Commission after a thorough scrutiny for prudence check and rationality, which helps the utilities to come out of losses and liabilities resulting in catering to growing demand throughout the state.

The present petition is filed as per guidelines prescribed in MSERC (Terms and Conditions for Determination of Tariff) 2011 and MSERC, MYT Regulations, 2014. The projections in the MYT petition for FY 2018-19 FY 2020-21 are based on audited accounts for FY 2015-16, provisional accounts for FY 2016-17 and approved Business plan for FY 2018-19 to FY 2020-21.

#### **Commission's views**

The Response of MePGCL is noted.

#### **(a) Annual Accounts**

##### **Objections:**

The petitioner has not made available to the public the Annual Accounts of FY 2016-17 or audited annual accounts for FY 2015-16 and also the Business plan for FY 2018-21. The petitioner, in contravention of Regulation 4 of MYT Regulations, did not submit the audit reports for FY 2015-16 and FY 2016-17 for MeECL. The petitioner may be directed to submit the audited accounts for all relevant years.

#### **Response of MePGCL**

The Business Plan Petition for FY 2018-19 to FY 2020-21 was approved by the Commission in its letter no. MSERC/MePGCL/Business Plan/2918-19/167 dated 15.11.2017. The audited statement of accounts for MePGCL for FY 2015-16 and provisional accounts for FY 2016-17 have been submitted to the Commission along with Tariff Petition for FY 2018-19. The audit report of MePGCL has been submitted to the Commission on 09.01.2018 in letter no. MePGCL/D/Gen/Misc-43/2008/PE-X/39 dated 09.01.2018. The objector can collect from the Commission post approval. Further the relevant section of the MSERC Regulations mentioned by the objector

did not envisage submission of statement of accounts for previous year.

**Commission's views**

The response of MePGCL is noted.

**(b) Gross Fixed Assets**

**Objection:**

MePGCL has not provided any details or break-up regarding components of loan, equity or grants on actual basis, but has simply included entire Capex as capitalized in GFA. This cannot be allowed as such inflated GFA will artificially increase the generation tariff which the consumers have to bear.

**Response of MePGCL**

The revised capital cost as on 01.04.2016, as certified by the statutory auditors for MLHEP is Rs. 1286.74 Crore. Out of this, the infirm energy during the trial run is Rs. 7.55 Crore. Hence the capital cost of MLHEP at Rs. 1279.19 Crore has been used for computation of different components of tariff.

The State Government has notified that all grants of Rs. 288.02 Crore for MLHEP should be treated as equity in its tariff order dated 30.03.2017 and the commission has considered this amount as equity and allowed ROE. The Commission had inadvertently considered the amount as grant during the depreciation computation in the tariff order.

MePGCL, while computing GFA during the control period, has considered the approved value of capitalization from the Commissions Business plan order dated 15.11.2017. While computing debt and equity components, MePGCL has excluded the grant to be received.

**Commission's views**

The Response of MePGCL is noted.

**(c) Depreciation**

**Objection**

- i. MePGCL has considered depreciation for plant and machinery at the rate of 5.81% as opposed to CERC prescribed rate of 5.28%.
- ii. The petitioner has not considered reduction in depreciation on grants, as was done by the Commission in its order dated 31.03.2017.
- iii. Regulation 33 of MYT Regulations provides for exclusion of consumer contribution or capital subsidy / grants from the asset value while calculating depreciation

**Response of MePGCL**

i. In the absence of segregated data for the asset categories of plant and machinery and Hydraulic works, the depreciation rate used for computation of plant and machinery portion of MLHEP is the average rates for plant and machinery (5.28%) and Hydraulic work (6.33%) as some of the components of hydraulic works relating plant machinery are included under plant and machinery head. Hence the average rate of 5.81% may be considered by the Commission.

ii & iii. Out of the net capital cost of Rs. 1286.74 crore the infirm energy during the trial run is Rs. 7.55 crore. Hence the capital cost of MLHEP as Rs. 1279.19 crore has been used for computation of different components of tariff.

The State Government has notified that all grants for MLHEP should be treated as equity and the Commission, in its tariff order dated 30.03.2017, has considered the grant amount as equity and allowed ROE on it which is in line with the regulation and the Commission has inadvertently considered the amount as grant during depreciation computation in the above mentioned order.

The break-up of Capital cost of MLHEP in line with the MSREC Regulations, 2014 is as follows:

Particulars	FY 2015-16 (Rs. Crores)
Total Project Completion cost (Audited)	1279.19
Equity Component	383.76
Debt Component	895.43

There is no element of consumer contribution on grant in the capital costs of MLHEP. Hence the petitioner claimed depreciation on the whole amount at the prescribed depreciation rates.

#### **Commission's views**

The response of MePGCL is noted

#### **(d) Debt Equity Ratio**

##### **Objection:**

In its order dated 30.03.2017, while approving tariff for 2017-18, the Commission allowed an equity base of Rs. 334.98 Crore and opening debt of Rs. 717.19 crore against GFA of Rs. 1278.80. The admitted grant component in GFA base is Rs. 288.02 crore as on 31.03.2016. The MePGCL seems to have omitted the grant component already recognized by the Commission in its order dated 30.03.2017. The debt and equity as on 01.04.2016 ought to be Rs. 717.62 Crore and Rs. 335.16 Crore respectively.

##### **Response of MePGCL**

The Commission in its tariff order for MLHEP dated 30.03.2017 has approved a capital cost Rs. 1141.83 Crore as certified by the statutory auditors as on 31.03.2013. The revised capital cost as on 01.04.2016, as duly certified by statutory auditors for Leshka is Rs. 1286.74 Crore and the infirm energy during trial run is Rs. 7.55 Crore. Hence the capital cost of MLHEP of Rs. 1279.19 Crore Leshka is used for computation of different components of tariff.

The State Government has notified that all grants for MLHEP should be treated as equity and the Commission has considered the grant amount as equity and allowed

ROE on it. Hence the breakup of capital cost of MLHEP is as follows:

Particulars	FY 2015-16 (Rs. Crore)
Total Computed cost (audited)	1279.19
Equity Component (30%)	383.76
Debt Component	895.43

The objections raised by the objector are not based on any justified ground or reasoning. The objector over looked the Tariff Order dated 30.03.2017.

**Commission’s views**

The response of MePGCL is noted.

**(e) Outstanding loan and interest on loan**

**Objection:**

MePGCL has considered a lower level of debt and high level of equity as against what has been allowed by the Commission in its order dated 30.03.2017 and also failed to provide details of capital expenditure funded by grants and by debt and the grant gone into the capital investments.

**Response of MePGCL**

The details of loans for on-going capital expenditure works in FY 2016-17 and loans for upcoming capital expenditure have been furnished in the statement of loans as Annexure (Format 7) in the tariff petition for FY 2018-19. The Commission, in its Business Plan order dated 15.11.2017 has clarified and approved the on-going and upcoming capital expenditure and also the funding pattern for the projects.

**Commission’s views**

The response of MePGCL is noted.

**(f) Return on Equity and Equity base:**

**Objection**

There is no reconciliation between the claims of MePGCL and the equity base and GFA as per accounts. Hence the Commission may allow equity base on normative basis to the extent of 30% after taking into account the grant that has gone into

capital investment.

#### **Response of MePGCL**

The net capital cost is Rs. 1286.74 crore and out of this, the infirm energy during trial run is Rs. 7.55 Crore. The capital cost of Leshka is Rs. 1279.19 Crore, which is used for computation of different components of tariff. The break-up of capital cost of MLHEP is as follows.

Total Computed cost (audited)	1279.19
Equity Component (30%)	383.76
Debt Component (70%)	895.43

The amount of equity and loan infused by the State Government was Rs. 323.57 Crore (After conversion from grant) and Rs. 75.45 Crore respectively. MePGCL is awaiting approval from State Government to convert Rs. 62.45 Crore, out of the amount of Rs. 75.45 Crore, into equity, thus reducing the State Government loan to Rs. 13 Crore only.

#### **Commission's views**

The response of MePGCL is noted.

#### **(g) O&M Expenses:**

##### **Objections**

Since MLHEP has achieved COD after 01.04.2009, O&M expenses have been fixed as per Regulation 56 (7) at 2% of capital cost and further escalated at 5.72% to arrive at O&M expenses for FY 2018-19 to FY 2020-21. The MePGCL has claimed O&M expenses on the basis of project cost amounting to Rs. 1279.19 Crore.

The Commission, in its order dated 30.03.2017 approved a project cost of Rs. 1134.28 Crore. As no further capital cost prudence has been conducted in respect of items of additional expenditure, the latest cost within the cut-off date ought to be considered as Rs. 1134.28 Crore.



### **Response of MePGCL**

The Commission, in its tariff order dated 30.03.2017 has approved a capital cost of Rs. 1141.83 Crore as certified by the statutory auditors as on 31.03.2013. The CWIP has been put into commercial use. The raised capital cost as on 01.04.2016 as duly certified by the statutory auditors for MLHEP is Rs. 1286.74 out of this the infirm energy is Rs. 7.55 Crore. Hence the capital cost of Rs. 1279.19 Crore has been used for computation of different components of tariff. O&M expenses for MLHEP have been projected based on Regulation 55 of MSERC Tariff Regulation, 2011 and as per MSERC MYT Regulations, 2014.

### **Commission's views**

The response of MePGCL is noted.

### **(h) Interest on Working Capital**

#### **Objection:**

In the light of the changes proposed by the objector, the working capital requirements will also change. The rate of interest for purpose of computing working capital shall be 14% as revised by SBI.

### **Response of MePGCL**

MePGCL has calculated interest on working capital as per Regulation 34.1 of MSERC Tariff Regulations, 2011. The short term lending rate for computing of interest on working capital is equal to the State Bank Advance Rate (SBAR) as on 1<sup>st</sup> April of the financial year in which the petition is filed in line with the MSERC Regulations. The last modification to the SBAR at Rs. 14.05% is applicable from 05.10.2015 and this rate has been taken for computation of interest on working capital.

### **Commission's views**

The response of MePGCL is noted.

**(i). Allowable Annual Fixed Cost (AFC) for MLHEP**

**Objection:**

As per BIA assessment, the annual fixed charges claim merits disallowance of at least Rs. 25.51 Crore, Rs. 25.71 Crore and Rs.25.96 Crore in FY 2018-19, FY 2019-20 and 2020-21 respectively in line with MYT Regulations.

**Response of MePGCL**

The AFC proposed by the petitioner for FY 2018-19 to FY 2020-21 is based on audited accounts of FY 2015-16 and provisional accounts of FY 2016-17 and is in line with the Regulations and the projections made in the tariff petition may be considered for approval.

**Commission's views**

The response of MePGCL is noted.

**(II). MYT for 2018-19 to 2020-21 for old stations and Sonapani**

**(a). Gross Fixed Assets (GFA)**

**Objection:**

As per provisional Annual Accounts for FY 2015-16 the GFA for MePGCL as on 31.03.2016 is Rs. 1696.14 Crore. MePGCL has not provided the necessary details / break-up regarding components of loan, equity on grants on actual basis and has simply included the entire Capex as capitalized in GFA. The inflated GFA will have impact on generation tariff which would ultimately be borne by the consumers.

**Response of MePGCL**

The capitalization for the second control period is based on the ongoing and upcoming schemes approved by the Commission in its Business Plan Order dated 15.11.2017. The Business Plan petition includes the details of every scheme / work including the funding pattern, the sharing data and year of completion and this has been approved by the Commission after prudence check. The objector can collect the same from the Commission after approval.

The GFA addition and funding pattern as approved by the Commission has been used for tariff determination in MYT Petition.

**Commission's views**

The response of MePGCL is noted.

**(b). Depreciation**

**Objection:**

MePGCL has erroneously considered 5.81% as rate for depreciation as against 5.28% as per CERC Tariff Regulations, 2014.

**Response of MePGCL**

The depreciation rate used for computation of depreciation of plant and machinery are average of rates for plant and machinery (5.28%) and Hydraulic Works (6.33%) since hydraulic works related to plant and machinery are included under plant and machinery head. In the absence of segregated data available for the asset categories of plant and machinery and Hydraulic work, MePGCL has taken the average rate for the two categories.

**Commission's views**

The response of MePGCL is noted.

**(c). Debt – Equity Ration**

**Objection:**

The debt and equity for old stations, including Sonapani, as on 01.04.2016 ought to be Rs. 217.01 Crore and Rs. 92.72 Crore respectively.

**Response of MePGCL**

MePGCL claimed debt – equity as per the provisions of MSERC MYT Regulations, 2014 and MSERC Tariff Regulations, 2011.

**Commission's views**

The response of MePGCL is noted

**(d). Additional loan and Interest on Loan**

**Objection:**

MePGCL claimed additional loan drawal to the tune of Rs. 565.74 for FY 2016 to 2020-21 and the same does not conform to the GFA addition claimed by MePGCL.

MePGCL has not made available details regarding capital expenditure to be funded by grant and by debt. The grant to be extended for capital investments during the period has also not been mentioned.

**Response of MePGCL**

MePGCL has computed the interest on loan based on the ongoing and upcoming projects to cater to the growing demand in the state and the same has been approved in the Business plan order dated 15.11.2017 by the Commission. Details of the scheme including funding pattern, capex and capitalization have been approved in the said order.

The petitioner has computed interest on loan based on current loan till FY 2017-18 as well as loans for upcoming capital expenditure in line with the Business plan.

**Commission's views**

The response of MePGCL is noted.

**(e). Equity base and ROE**

**Objection:**

In the absence of any reconciliation between the equity base and GFA as per accounts, the Commission may allow equity base on normative basis to the extent of 30% of GFA or actual, whichever is lower, after taking into account the grant that has gone into the capital investment.

**Response of MePGCL**

MePGCL has claimed ROE as per provision of MSERC Tariff Regulations, 2011 and MYT Regulations 2014.

**Commission's views**

The response of MePGCL is noted.

**(f). O&M Expenses**

**Objection:**

The Commission has allowed escalation on O&M expenses, in its MYT Order for FY 2015-16 to 2017-18, as allowed in FY 2014-15 and determined charges for the control period. Similar approach may be adopted by the Commission in the instant petition also.

In the absence of latest audited accounts for FY 2016-17, the Commission may approve O&M expenses on escalation basis i.e. 5.72% in line with previous orders.

**Response of MePGCL**

O&M expenses are approved based on the actuals of past years for each element i.e. Employee Cost, R&M Cost and A&G Cost and as such, there is no margin provided for rate of increase in the requirement of O&M expenses based on increase in Business volume. For the central sector generation and transmission companies, the impact of pay revision can be incorporated in the same year through supplementary bills and for the state owned companies this is not possible as the revision of tariff is not possible during the year.

As per Regulation 48 of MYT Regulations, 2014, the O&M expenses are a sum of employees cost, R&M expenses and A&G Expenses.

The O&M expenses for old plants, including Sonapani, have been projected based on expenditure incurred in FY 2015-16 and FY 2016-17 as per statement of accounts. All factors including present market inflation, revision of pay has been duly accounts for in projecting the expenses head-wise for the control period.

For projecting O&M expenses, the following assumptions are made;

➤ **Employer Cost**

- a. Permanent employees of MePGCL are given one increment of 3% on basic pay on yearly basis;

- b. DA is considered on yearly basis at about 12%;
- c. HRA is paid as a percentage of basic pay;
- d. Other allowances like medical allowance, over time allowance etc with an yearly increment of 6%;
- e. Terminal benefits for FY 2017-18 have been considered at an increment of 3%. This will be claimed as per actual at the time of true-up. Provision for pay revision in ARR would ease the burden on consumer preventing shock to them;

➤ **A&G Expenses**

These are projected as a whole for the control period considering the present average inflation rate of 5.5% over the A&G expenses shown in the provisional SOA for FY 2016-17.

➤ **R&M Expenses**

Most of the stations being old, there is need to take up regular R&M activities but due to revenue deficit MePGCL has not been able to take up R&M works in a planned manner. Hence the present years average rate of 5.5% has been taken for projection of R&M cost in MYT petition for old plants, including sonapani, over the R&M expenses shown in provisional SOA FY 2016-17 for the control period.

**Commission's views**

The response of MePGCL is noted.

**(g). Interest on Working Capital**

**Objection:**

Due to the changes suggested by BIA in O&M expenses, the working capital requirement also has to change. Further the rate of interest for computing working capital shall be 14% as revised by SBI.

**Response of MePGCL**

MePGCL has calculated the interest on working capital as per Regulation 31.4 of MSERC MYT Regulations, 2014.

The interest to be computed on working capital is equal to State Bank Advance Rate (SBAR) as 1<sup>st</sup> April of the financial year in which the petition is filed as per MSERC Regulations. The petitioner has used 14.05% for computation of interest on working capital which is latest SBAR.

**Commission's views**

The response of MePGCL is noted.

➤ **Annual Fixed Charge (AFC)**

**Objection:**

The Commission is requested to call for all relevant data to adjudge the reasonableness of the computations submitted by MePGCL.

**Response of MePGCL**

The AFC proposed by the petitioner for control period from FY 2018-19 to 2020-21 is based on the actuals for FY 2015-16 and provisional for FY 2016-17 and is in accordance with the regulations.

**Commission's view**

The response of MePGCL is noted.

**Summary of objections by BIA:**

It is relevant to mention that the Commission has conducted public hearing on the petition of the MePGCL on 08.03.2018 as scheduled. Since MeECL has made its presentation during the State advisory Committee Meeting so the Chairman asked the BIA representatives to present their views and also to submit the same in writing after the hearing, which they did as appended below.

Stations	Points of Objections
New Umtru Hydro Electric station (NUHEP)	There has been no prudence check of the capital cost of NUHEP, no 3rd party verification of the cost items. The provisional tariff was approved for 2017-18 in the Order dated 6.11.2017 merely on the basis of cost certified by statutory auditor. In view of the COD of the project, the Petitioner must file all the details for capital cost prudence in accordance with the Tariff Regulations.
Myntdu Leshka Hydro Electric Power Plant (MLHEP)	<p>Non-availability of Annual Accounts/business plan-</p> <ul style="list-style-type: none"> <li>• The Petitioner has neither provided the Annual Accounts of 2016-17 nor the Audited Annual Accounts of 2015-16 in the instant Petition.</li> <li>• The Business Plan for 2018-19 to 2020-21 approved by the Hon'ble Commission has also not been provided anywhere.</li> </ul>
	<p>Gross Fixed Assets do not depict contribution from Grants (Rs 288 crore)-</p> <ul style="list-style-type: none"> <li>• GFA has been claimed based on the opening balance as on 1.4.2016 at Rs.1279.19 cr.</li> <li>• GFA of MLHEP constitutes a significant amount of grant which was duly taken into account by the Hon'ble Commission in its Order dated 30.3.2017 while determining the Capital Cost of the Project.</li> <li>• Thus, an amount of Rs. 288.02 cr. is included as grant in the GFA as on 31.3.2014.</li> <li>• In the instant Petition, no details/breakup have been filed in respect of the components of loan, equity or grants on actual basis.</li> </ul>
	<p>Depreciation on Grant portion of GFA to be disallowed-</p> <ul style="list-style-type: none"> <li>• The Petitioner has claimed depreciation purportedly as per Regulation 33 of the MYT Regulations, 2014. It has stated that it has considered depreciation rates as prescribed in the CERC Tariff Regulations, 2009- <ol style="list-style-type: none"> <li>1. Depreciation rate for plant and machinery has been considered at 5.81% against 5.28% prescribed by the CERC Tariff Regulations, 2014.</li> <li>2. Hon'ble Commission has considered reduction of depreciation on grants in the previous order dated 30.3.2017</li> </ol> </li> </ul>
	<p>Equity base and Return on equity-</p> <ul style="list-style-type: none"> <li>• The Petitioner has claimed RoE based on an opening equity base on 1.4.2016 at Rs. 383.76 cr. Commission has approved a normative equity base of Rs. 334.98 cr. on 31.3.2015 in its Order dated 30.3.2017.</li> <li>• In absence of any reconciliation between the equity base and the GFA as per Accounts and the claims of Petitioner, Hon'ble Commission may allow equity base on normative basis to the tune of 30% after taking into account the grant that has gone into capital investment. The Commission has adopted a similar approach of allowing normative equity in earlier Order also.</li> </ul>
	<p>O&amp;M expenses-</p> <ul style="list-style-type: none"> <li>• The Commission had approved a project cost of Rs. 1134.28 cr. as on COD in its Order dated 30.3.2017. Based on this cost, the objector's assessment of O&amp;M expenses shall be as below:</li> </ul> <p style="text-align: right;"><i>(in Rs. Cr.)</i></p>



	O&M Expenses	Petitioner's Submission	Objector's Assessment	Proposed disallowance	
	FY 2013-14	25.58	22.69		(2% of Project Cost)
	FY 2014-15	27.05	23.99		(5.72% escalation over previous Year)
	FY 2015-16	28.59	25.36		
	FY 2016-17	30.23	26.81	<b>3.42</b>	
	FY 2017-18	31.96	28.34	<b>3.62</b>	
	FY 2018-19	33.79	29.97	<b>3.82</b>	
	FY 2019-20	35.72	31.68	<b>4.04</b>	
	FY 2020-21	37.76	33.49	<b>4.27</b>	
	Interest on Working Capital- <ul style="list-style-type: none"> <li>Working capital requirements will change owing to                             <ol style="list-style-type: none"> <li>Change in the O&amp;M expenses</li> <li>Change in maintenance spares</li> </ol> </li> <li>Rate of interest for the purpose of computing working capital shall be 14% as revised by the State Bank of India.</li> </ul>				
Old Stations & Sonapani	1) Gross Fixed Assets <ul style="list-style-type: none"> <li>Gross Fixed Assets (GFA) of MePGCL has been submitted based on the opening balance as on 1.4.2016 at Rs. 1707.69 cr. However, GFA of MePGCL as evident from the available provisional Annual Accounts for 2015-16 is Rs.1696.14 cr. as on 31.3.2016.</li> <li>Details/breakup in respect of the components of loan, equity or grants have not been furnished on actual basis.</li> </ul>				
	2) Depreciation <ul style="list-style-type: none"> <li>The Petitioner has claimed depreciation purportedly as per Regulation 33 of the MYT Regulations, 2014. It has stated that it has considered depreciation rates as prescribed in the CERC Tariff Regulations, 2009. However, depreciation rate for plant and machinery has been considered at 5.81% against 5.28% prescribed by the CERC Tariff Regulations, 2014.</li> </ul>				
	3) Debt: equity ratio- Grant considered in equity base <ul style="list-style-type: none"> <li>The Petitioner has claimed the opening debt at Rs. 1124.41 cr. and opening equity base of Rs. 399.04 cr. on 1.4.2016 against an opening GFA of Rs. 1707.69 cr. for MePGCL.</li> <li>Hon'ble Commission, in its Order dated 31.3.2017 admitted an equity base at Rs. 91.35 cr. for the old stations and sonapani, against a GFA of Rs.303.80 cr.</li> <li>Based on the additional capital expenditure claimed during 2015-16 i.e. Rs. 4.56 cr., the normative debt:equity is worked out as on 31.3.2016.</li> <li>Thus, debt and equity for the old stations as on 1.4.2016 ought to be Rs. 217.01 cr. and Rs. 92.72 cr. respectively.</li> </ul>				

	<p>4) Additional loan and Interest on Loan</p> <ul style="list-style-type: none"> <li>• The Petitioner has claimed an additional loan drawl to the tune of Rs. 565.74 cr. from 2016-17 to 2020-21, which apparently doesn't conform to the GFA addition claimed by the Petitioner.</li> <li>• Funding details not provided – Loan/Equity/Grant</li> </ul>
	<p>5) Equity base and Return on equity</p> <ul style="list-style-type: none"> <li>• The Petitioner has claimed an additional loan drawl to the tune of Rs. 565.74 cr. from 2016-17 to 2020-21, which apparently doesn't conform to the GFA addition claimed by the Petitioner.</li> <li>• Accordingly, in absence of any reconciliation between the equity base and the GFA as per Accounts and claims of the petitioner, Hon'ble Commission may allow equity base on normative basis to the tune of 30% of GFA or the actual, whichever is lower after taking into account the grant that has gone into capital investment. The Commission has adopted a similar approach of allowing normative equity in earlier Order also.</li> </ul>
	<p>6) O&amp;M expenses</p> <ul style="list-style-type: none"> <li>• It is submitted that the Commission made following observations while issuing the MYT order for the period 2015-16 to 2017-18:  <i>"The expenses can only be validated if the audited records were made available to the Commission. The Commission has examined the O&amp;M expenses projected by MePGCL. In accordance with the regulations and available records, the Commission has allowed escalation on the O&amp; M expenditures as allowed in FY 2014-15 and determined the charges for the control period. After getting the audited records the Commission shall review the same and if required appropriate changes shall be considered."</i> </li> <li>• Since the Provisional Accounts for 2015-16 indicate the employee expenses at Rs. 62.19 cr., the claim of the Petitioner to increase the same to Rs. 95.47 cr. during 2017-18 is unwarranted.</li> <li>• In absence of the latest audited Accounts for 2016-17, the Hon'ble Commission may adopt the same approach and approve the O&amp;M expenses on escalation basis i.e. @5.72% y-o-y in line with its earlier orders.</li> </ul>
	<p>7) Interest on Working Capital</p> <ul style="list-style-type: none"> <li>• Working capital requirements &amp; interest on working capital shall change             <ul style="list-style-type: none"> <li>○ owing to change in the O&amp;M expenses</li> <li>○ rate of interest for the purpose of computing working capital shall be 14% as revised by the State Bank of India.</li> </ul> </li> </ul>

The General Secretary of the Greater Shillong Crematorium & Mortuary Society told that they made a written submission to the Commission under Regulation 9 (1) of the Meghalaya State Electricity Regulatory Commission (Redressal of Grievances) Regulations, 2007 and reiterated that there should be no further hike in the tariff and they may be allowed to continue in the existing tariff. The Commission thanked the members for their views and suggestions which the Commission will look into.

## 4. Commission's Approach

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### 4.1 General

In the earlier orders, the Commission discussed the principles and provisions of the Regulations for determining tariff for Generating Company. The Commission has tried to adhere to the Regulations, National Tariff Policy and provisions of Electricity Act, 2003 to determine the Tariff of different companies working in the power sector. However, at the same time, the Commission has also tried to apply such regulations in a pragmatic manner so as to consider the ground realities. In the public hearing, consumers objected to non-availability of audited accounts of MeECL and its subsidiaries and apprehended that there are chances of surpluses. It was even difficult for the Commission to validate numbers without verifying audited accounts. In the absence of audited account of FY 2016-17 the Commission has tried to validate expenditures of generating stations on the basis of actual accounting records for the period April 2017 – November 2017 and provisional records for previous years duly audited as per Regulations. By this approach the Commission has tried to fix the tariff for FY2018-19 and maintain the continuity of improved cash flow in the sector. The Commission shall true up the numbers after the audit of financial statements of MePGCL are submitted.

The Commission has followed the MYT tariff regulations for the purpose of determining Aggregate Revenue Requirement & Annual Fixed Cost of all generating stations on the basis of records available to it and prudence check subject to reasonability of the cost and financial viability of the generating company. The Commission has also considered the MSERC (terms and conditions for determination of tariff for generation from Renewable Energy Sources) Regulation 2014 subject to modifications wherever required so.

**Statutory requirements:**

Section 64 of the Electricity Act, 2003 requires the generating companies to file an application for determination of tariff under section 62 of the Act in such manner as specified through the regulations by the Regulatory Commission. Section 61 of the Act further requires the Commission to specify the terms and conditions for determination of tariff in accordance with the provision of the act. The act also provides that the Commission shall be guided by the principles and methodologies specified by Central Electricity Regulatory Commission, the National Tariff and Electricity Policies.

In the light of the above provisions of the act, the Commission has already notified MSERC (Multiyear tariff) Regulations 2014 and RE Regulations 2014. The regulations shall be applied in the State of Meghalaya till such time they are revised by the Commission. For the purpose of this Tariff Order, the Commission shall therefore, be guided by the said regulations subject to the relaxation wherever necessary for various valid reasons recorded therein.

By and large, in line with the provisions of tariff regulations, the Commission is following at present the cost plus approach and normative standard subject to prudence check and efficient norms.

**4.1.1 Filing of Petition:**

Regulation 18 specifies the process of filing a petition for determining the tariff of existing running power plants.

**4.1.2 Capital Cost**

Regulation 28 and 52 provides the approval of actual capital cost subject to prudence check by the Commission for new investments. The Commission shall scrutinize the reasonableness of the capital cost, financial plans and interest during construction period, use of efficient technology and such other matters for determination of tariff.

The regulation also prescribes that in case of any abnormal delay in execution of the project causing cost and time over run attributable due to the failure of the utility, the Commission may not approve the full capitalization of interest and overhead expenses. The regulation also prescribes that where power purchase agreement entered into between generating company and the distribution licensee provides for a ceiling of actual expenditure. The regulation has also prescribed that the Commission may issue guidelines for verifying the capital cost of hydroelectric projects by an independent agency or expert committee and in such a case the capital cost as vetted by such agency may be considered by the Commission while determining the tariff of such hydro generating stations. For the purpose of this order the Commission has considered the GFA value as given in the transfer scheme notified by the Government of Meghalaya and added the subsequent assets after the commercial operation. The Commission has taken the same stand as taken in previous years that without audit of financial statements of Corporation, it will adhere to those numbers which are already approved by the Commission in its tariff order for FY 2013-14.

#### **4.2 Additional Capitalization**

Regulation 29 provides that some of the capital expenditure (on account of un-discharge liabilities, on account of change in law, etc.) actually incurred after the date of commercial operation and up to the cutoff date may be admitted by the Commission subject to the prudence check.

#### **4.3 Renovation and Modernization**

Regulation 53 provides that the generating company for the purpose of extension of life beyond the useful life of a generating station or a unit thereof may incur expenditure on renovation and modernization. However, it shall make an application before the Commission for approval of the proposal with a detailed project report giving complete scope, justification, cost benefit analysis, estimated life extension, funding, phasing of expenditure, schedule of completion, reference price level, estimated completion cost. In case of Umiam Stage I & II there was no

prior approval of the Commission. Therefore the Commission is allowing the MePGCL proposal to the extent it may meet its obligations, and consumers are also not unduly overburdened. However, after the audit process is over, the Commission shall validate the numbers.

#### **4.4 Debt Equity Ratio**

Regulation 27 provides that for the purpose of determination of tariff of new generating stations commencing commercial operation after the notification of this regulation, the debt equity ratio shall be 70:30. Where equity employed is more than 30%, the amount of equity for the purpose of tariff shall be limited to 30% and the balance shall be treated as normative loan. Where actual equity employed is less than 30%, the actual equity employed shall be considered. It is important to note that issue of share capital shall only be treated as amount of equity invested for the purpose of determination of tariff.

In the case of existing generating station the debt equity ratio as per the balance sheet on the date of the transfer notification will be the debt equity ratio for the first year of operation subject to such modification as may be found necessary upon audit of the accounts if such balance sheet is not audited. The debt equity amount arrived shall be used for calculating interest on loan, return on equity, etc.

In this tariff order, the Commission is not accepting the size of equity as proposed by the generation corporation.

#### **4.5 Components of Tariff**

Regulation 54 provides that there will be tariff for supply of electricity from a hydro power generating station which comprises of two parts, namely, annual capacity charges and energy charges.

The fixed cost of a generating station shall be recovered through annual capacity charges and shall consist of:

- a) Return on equity as may be allowed
- b) Interest on loan capital

- c) Operation and maintenance expenses
- d) Interest on working capital
- e) Depreciation as may be allowed by the Commission
- f) Income Tax.

The annual capacity charges shall be worked out by deducting any other income of the generating company from the total expenses.

#### 4.6 Return on Equity

Return on equity shall be computed in accordance with regulation 27 on the equity base as determined in accordance with regulation 31 and shall not exceed 14%. However, in the absence of audited and separate accounts for each utility the Commission has decided to allow same return on equity as per the Regulation 27 and 31 to Generation Corporation.

The Commission shall allow return on equity which shall not exceed 14% for tariff of MePGCL. In this tariff order, the Commission has decided not to change its position from the previous years and do not allow return on equity as proposed.

#### 4.7 ROE, Depreciation etc.

Commission considers that Hydel Projects namely Umiam-I, II, III & Umtru have served life term prescribed in the CERC Regulations. These plants served even beyond their life term and generated substantial Revenues.

**Table 4.1: The Dates of Commissioning and their dates of life term**

S. No	Name of the Station	No. of Units	Capacity (MW)	Total Capacity (MW)	Year of Commissioning
1	Umiam Stage I	I	9	36	21.02.1965
		II	9		16.03.1965
		III	9		06.09.1965
		IV	9		09.11.1965
2	Umiam stage-II	I	10	20	22.07.1970
		II	10		24.07.1970
3	Umiam stage-III	I	30	60	06.01.1979
		II	30		30.03.1979
4	Umtru Power Station	I	2.8	11.2	01.04.1957
		II	2.8		01.04.1957
		III	2.8		01.04.1957
		IV	2.8		12.07.1968

The depreciation and Return on Equity is not considered against the above 4 projects in the present Order. However O & M expenses are allowed for ARR and tariff determination as already decided by the Commission in the tariff orders for FY 2013-14

#### **4.8 Interest and finance charges on loan capital**

Regulation 55 provides that interest and finance charges on loan capital shall be computed on the outstanding loans, duly taking into account the schedule of loan repayment, terms and conditions of loan agreement, bond or debentures and the lending rates prevailing thereon. However, the loan capital should meet the requirement of regulation prescribed for debt equity ratio. The regulation also prescribes that interest and finance charges attributable to capital work in progress shall not be allowed. There is a provision in the regulation that generating company shall make every effort to swap loans as long as it results in net benefit to it. In case of any moratorium period is availed by the generating Licensee, the depreciation provided for in the tariff during the years of moratorium shall be treated as repayment during those years and interest on loan capital shall be calculated accordingly.

Interest and Finance charges against the New Umtru and Lakroh projects are allowed in this Order to enable the Licensee to discharge the liability of borrowed money. Interest and finance charges are allowed as admissible in this order.

#### **4.9 Operation and maintenance expenses**

The operation and maintenance expenses shall comprise of the following:

- a. Employees cost
- b. Repair and maintenance
- c. Administration and general expenses

In order to introduce efficient operation in the generation, the Commission is allowing ceiling on the O & M expenses so that at the time of truing up it may not allow any unreasonable expenses over and above the O&M expenses beyond limits



of ceiling. In the FY 2017-18, the Commission has allowed the O & M expenses as per Regulations which also met with the MePGCL proposal. For FY 2018-19, the Corporation has demanded more than what Regulation provides for. The approach for determining the O & M expenses for FY 2018-19 shall not be different from the FY 2017-18. The Commission also feels that the expenses should be within the normative parameters and should not exceed the budgeted figures. Accordingly the Commission has allowed combined O&M cost after considering escalation on the expenses as allowed in the Regulations. The petitioner requires to control its expenses in each head so as to remain within the ceiling of O&M expenses. The O&M expenses against New Umtru and Lakroh are not considered in this Order.

#### **4.10 Interest on working capital**

Regulation 34 (iii) prescribes that working capital shall cover the following:

- a. Operation and maintenance expenses for one month
- b. Maintenance spares at 15% of O&M expenses escalated at 6%
- c. Two months receivables of AFC

Rate of interest on the working capital shall be short term prime lending rate of SBI MCLR at 14.05%.

The interest on Working Capital is allowed as per regulations.

On the basis of the FY 2017-18 record, the Commission has allowed interest on loan capital and working capital.

#### **4.11 Depreciation**

Regulation 33 provides that depreciation shall be computed on the assets/capital costs of the assets as approved by the Commission where the opening asset value recorded in the balance sheet as per the transfer scheme notification shall be deemed to have been approved. However, after the audit of the accounts necessary modification may be made. For the new assets the approved cost for the asset value shall be taken into account. The depreciation shall be calculated annually as per

straight line method at the rates as specified in CERC regulations. In case of the existing projects the balance depreciable value as on 01.04.2010 shall be worked out by deducting the cumulative depreciation as admitted by the Commission from the gross value of the assets. Depreciation shall only be chargeable from the first year of operation. The Commission has allowed the depreciation in order to meet the financial commitments of the Corporation for renovation and modernization. However, after meeting its obligation under the contract, the licensee shall create a separate reserve for meeting the replacement of assets or modernization of the unit in future. The Commission has allowed sufficient budget in it and desired that the petitioner shall use it judiciously for its R& M work of old stations.

#### **4.12 Income Tax**

Income tax shall be treated as expenses and shall be recoverable from the beneficiary through tariff. The income tax actually paid shall be included in the ARR. Any under recovery or over recovery shall be adjusted every year on the basis of income tax certificate issued by the authorities. The Licensee has not claimed any income tax in the petition for the control period.

#### **4.13 Computation of capacity charges and energy charges**

Regulation 57 provides the methodology to calculate the capacity charges and energy charges to be payable by the beneficiary. However, the Commission has determined the same in order to make simple tariff and its application for generator and distribution utility. During the proceedings, the Commission has determined the tariff on the basis of the regulations as well as adopting a pragmatic approach in the interest of the all stakeholders.

## 5. Analysis of ARR for the 2<sup>nd</sup> MYT Control Period FY 2018-19 to FY 2020-21 and determination of Generation Tariff for MLHEP & MePGCL Old Projects for FY 2018-19

### 5.1 Background

Myntdu Leskha Hydro Electric Project (3 X 42=126 MW) was commissioned and brought to commercial operation with effect from 01.04.2013.

Commission had approved the Capital Cost of the Project at Rs.1134.28 Crore on 30.03.2017 and Business carried out during the FY 2013-14 and FY 2014-15 (Provisional) has been tried down with a gap, between the AFC and Revenue earned, has been approved for Rs. 163.00 Crore to be claimed from the beneficiary MePDCL in the FY 2018-19 and FY 2019-20. A provisional ARR and Tariff for the FY 2015-16, FY 2016-17, FY 2017-18 under MYT Regulations 2014 was approved on 30.03.2017. The Licensee was directed to maintain separate Assets records for MLHEP and to submit to the Commission.

In the above back drop MePGCL has filed separate ARR for MLHEP for the 2<sup>nd</sup> MYT Control Period FY 2018-19 to FY 2020-21 on 30.11.2017. The Licensee has yet to file petition for true up of the Business for FY 2013-14 to FY 2016-17 together with the C & AG audit reports.

### 5.2 Gross Fixed Assets of MLHEP

MePGCL has submitted the GFA of Myntdu Leskha HEP for the 2<sup>nd</sup> Control Period FY 2018-19 to FY 2020-21 in the table 5.1.

**Table 5.1: Gross Fixed Assets projected for MLHEP**

		(Rs. Cr)				
S.No		FY 2016-17	FY 2017-18	FY 2018-19	FY 2019-20	FY 2020-21
1	Opening GFA	1279.19	1279.13	1279.13	1283.64	1283.64
2	Additions during the year	-	-	4.55	-	-
3	Retirements	0.06	-	-	-	-
4	Closing GFA	1279.13	1279.13	1283.64	1283.64	1283.64

### Commission's analysis

MePGCL has proposed asset Capitalization of Rs. 4.55 Crore during FY 2019-20 in the Business Plan for the MYT Control Period, whereas capital addition is projected in the petition for FY 2018-19. Commission approves GFA for 2<sup>nd</sup> MYT Control period FY 2018-19 to FY 2020-21 as projected by MePGCL. MePGCL has not filed true up petition from FY 2013-14 to FY 2016-17 together with Audited (C&AG) Accounts as per Regulations.

### 5.3 O & M Expenses for MLHEP

#### Petitioner's submission

MePGCL has projected O & M Expenses for the 2<sup>nd</sup> MYT Control Period FY 2018-19 to FY 2020-21 as detailed in the table 5.2.

**Table 5.2: O & M Expenses**

FY 2018-19	FY 2019-20	FY 2020-21
33.79	35.72	37.76

#### Commission's Analysis

Commission had fixed in the tariff order for FY 2017-18, the O & M expenses as per the Regulation 55(7) of MSERC Reg-2011 for the FY 2013-14 (COD) at Rs. 22.69 Crores on the approved original project cost of Rs. 1134.28 Crore, to be escalated at 5.72 % year on year. The O&M expenses are computed accordingly as detailed in table 5.3 for subsequent years.

**Table 5.3: O & M expenses for subsequent years**

1	O & M Expenses escalated at 5.72 %	For FY 2013-14	Rs.22.69 Crore
2	O & M Expenses escalated at 5.72 %	For FY 2014-15	Rs.23.99 Crore
3	O & M Expenses escalated at 5.72 %	For FY 2015-16	Rs.25.36 Crore
4	O & M Expenses escalated at 5.72 %	For FY 2016-17	Rs.26.81 Crore
5	O & M Expenses escalated at 5.72 %	For FY 2017-18	Rs.28.35 Crore
6	O & M Expenses escalated at 5.72 %	For FY 2018-19	<b>Rs.29.97 Crore</b>
7	O & M Expenses escalated at 5.72 %	For FY 2019-20	<b>Rs.31.68 Crore</b>
8	O & M Expenses escalated at 5.72 %	For FY 2020-21	<b>Rs.33.49 Crore</b>

**Commission approves O& M expenses at Rs. 29.97 Crore, Rs. 31.68 Cr, Rs. 33.49 Crore for the Control Period FY2018-19, FY2019-20, FY2020-21 respectively.**

#### 5.4 Return on Equity for MLHEP

##### Petitioner's submission

MePGCL has projected the Return on equity for FY 2016-17, FY 2017-18 and for MYT 2<sup>nd</sup> Control Period for FY 2018-19 to FY 2020-21, as depicted in the table 5.4.

**Table 5.4: Return on equity projected**

S. No	Particulars	(Rs. Cr)				
		FY 2016-17 (Provisional)	FY 2017-18 (Estimated)	FY 2018-19 (Projected)	FY 2019-20 (Projected)	FY 2020-21 (Projected)
1	Opening Equity	383.76	383.76	383.76	383.95	383.95
2	Equity added for CAPEX	-	-	0.20	0.25	-
3	Equity as 30 % of GFA added (b)	-	-	1.37	-	-
4	Addition of Equity (lower of (a) and (b))	-	-	0.20	-	-
5	Closing Equity base	383.76	383.76	383.95	383.95	383.95
6	Average Equity	383.76	383.76	383.76	383.95	383.95
7	Return on equity at 14 %	53.73	53.73	53.74	53.75	53.75

MePGCL has requested the Commission for approval of the Return on Equity as computed in the above table for Control period FY 2018-19 to FY 2020-21.

##### Commission's Analysis

Commission had in the tariff orders for FY 2017-18 approved Return on Equity assuming Equity base at Rs 334.98 Crore as on 31.03.2015 as per the Regulation 51 of MSERC Regulations 2011. The Date of completion of the project was prior to 01.04.2015 and hence the Regulations 2011 are made applicable. The licensee has not filed petition for true up of business for FY 2015-16 and FY 2016-17 along with audited Accounts, the Equity base on 31.03.2015 is considered for Computation of Return on Equity for the Control period FY 2018-19, FY 2019-20, FY 2020-21 as depicted in the table 5.5.

**Table 5.5: Return on Equity for the Control period for MLHEP**

		(Rs. Cr)				
S. No		FY 2016-17	FY 2017-18	FY 2018-19	FY 2019-20	FY 2020-21
1	Opening equity	334.98	334.98	334.98	335.18	335.18
2	Addition	-	-	0.20	-	-
3	Closing Equity	334.98	334.98	335.18	335.18	335.18
4	Average Equity	334.98	334.98	335.08	335.18	335.18
5	Return on Equity at 14%	46.90	46.90	46.91	46.93	46.93

**Commission considering the proposed Capitalisation as per Business Plan, approves Return on equity for the Control Period FY 2018-19, FY 2019-20, FY 2020-21 at Rs. 46.91 Crore, Rs. 46.93 Crore, Rs. 46.93 Crore respectively.**

## 5.5 Depreciation for MLHEP

### Petitioner's submission

MePGCL has claimed depreciation for the Control Period at Rs.63.13 Crore, Rs.63.24 Crore and Rs.63.24 Crore as per the Asset wise breakup furnished in the table 5.6.

**Table 5.6: Depreciation projected for MLHEP**

		(Rs. Crore)				
S. No	Name of the Asset	FY 2016-17 (Provisional)	FY 2017-18 (Estimated)	FY 2018-19 (Projected)	FY 2019-20 (Projected)	FY 2020-21 (Projected)
1	Land	-	-	-	-	-
2	Buildings	4.87	4.87	4.88	4.89	4.89
3	Plant and Equipment	19.14	21.04	21.08	21.11	21.11
4	Furniture and Fixtures	0.00	0.00	0.00	0.00	.00
5	Vehicles	0.004	0.004	0.004	0.004	0.004
6	Office equipment	0.001	0.001	0.001	0.001	0.001
7	Bearer Plants	-	-	-	-	-
8	Others:	-	-	-	-	-
(a)	Hydraulic works	32.73	32.73	32.79	32.85	32.85
(b)	Other Civil works	4.06	4.07	4.08	4.09	4.09
(c)	Lines and Cable Network	0.24	0.24	0.24	0.24	0.24
9	Asset under lease	-	-	-	-	-
	<b>Total</b>	<b>61.10</b>	<b>63.01</b>	<b>63.13</b>	<b>63.24</b>	<b>63.24</b>

### Commission's Analysis

The Licensee has not filed petition for true-up of the Business from 2013-14 to FY 2016-17, the Asset breakup for Control Period FY 2018-19, FY 2019-20, FY 2020-21 has been adopted for computation of Depreciation as projected.

As per the regulation 33 (1) of MSERC Regulations 2014, Depreciation shall be allowed up to 90% of the capital Cost of asset. In case of operation of the Asset for part of the year, depreciation shall be charged on pro-rata basis.

Commission has considered the Depreciation in the following tables for the Control Period as projected in the petition.

**Table 5.7: Value of Assets and Depreciation for FY 2018-19 (Approved)**

(Rs. Cr)							
S. No	Name of the Asset	Value of Assets at the beginning of the year	Addition during the year	Withdrawn during the year	Value of Assets at the end of the year	Rate of Depreciation	Depreciation Charges for the year
1	Land	23.73	0.08	-	23.82	0	-
2	Buildings	145.82	0.52	-	146.34	3.34	4.38
3	Plant and Equipment	362.43	1.29	-	363.72	5.28	17.25
4	Furniture and Fixtures	0.08	0.00	-	0.08	6.33	0.0
5	Vehicles	0.46	0.00	-	0.46	9.50	0.03
6	Office equipment	0.18	0.00	-	0.18	6.33	0.01
7	Bearer Plants	-	-	-	-	-	-
8	Others:	-	-	-	-	-	-
(a)	Hydraulic works	619.91	2.21	-	622.12	5.28	29.51
(b)	Other Civil works	121.93	0.43	-	122.37	3.34	3.67
(c)	Lines and Cable Network	4.54	0.02	-	4.56	5.28	0.22
9	Asset under lease	-	-	-	-	-	-
	<b>Total</b>	<b>1279.09</b>	<b>4.55</b>	<b>-</b>	<b>1283.64</b>	<b>-</b>	<b>55.07</b>

**Table 5.8: Value of Assets and Depreciation for FY 2019-20 (Approved)**

(Rs. Cr)							
S. No	Name of the Asset	Value of Assets at the beginning of the year	Addition during the year	Withdrawn during the year	Value of Assets at the end of the year	Rate of Depreciation	Depreciation Charges for the year
1	Land	23.73	-	-	23.82	0	-
2	Buildings	146.34	-	-	146.34	3.34	4.39
3	Plant and Equipment	363.72	-	-	363.72	5.28	17.28
4	Furniture and Fixtures	0.08	-	-	0.08	6.33	-

S. No	Name of the Asset	Value of Assets at the beginning of the year	Addition during the year	Withdrawn during the year	Value of Assets at the end of the year	Rate of Depreciation	Depreciation Charges for the year
5	Vehicles	0.46	-	-	0.46	9.50	0.04
6	Office equipment	0.18	-	-	0.18	6.33	0.01
7	Bearer Plants	-	-	-	-	-	-
8	Others:	-	-	-	-	-	-
(a)	Hydraulic works	622.12	-	-	622.12	5.28	29.56
(b)	Other Civil works	122.37	-	-	122.37	3.34	3.68
(c)	Lines and Cable Network	4.56	-	-	4.56	5.28	0.22
9	Asset under lease	-	-	-	-	-	-
	<b>Total</b>	<b>1283.64</b>	<b>-</b>	<b>-</b>	<b>1283.64</b>	<b>-</b>	<b>55.18</b>

Table 5.9: Value of Assets and Depreciation for FY 2020-21 (Approved)

(Rs.Cr)

S. No	Name of the Asset	Value of Assets at the beginning of the year	Addition during the year	Withdrawn during the year	Value of Assets at the end of the year	Rate of Depreciation	Depreciation Charges for the year
1	Land	23.73	-	-	23.82	0	-
2	Buildings	146.34	-	-	146.34	3.34	4.39
3	Plant and Equipment	363.72	-	-	363.72	5.28	17.28
4	Furniture and Fixtures	0.08	-	-	0.08	6.33	-
5	Vehicles	0.46	-	-	0.46	9.50	0.04
6	Office equipment	0.18	-	-	0.18	6.33	0.01
7	Bearer Plants	-	-	-	-	-	-
8	Others:	-	-	-	-	-	-
(a)	Hydraulic works	622.12	-	-	622.12	5.28	29.56
(b)	Other Civil works	122.37	-	-	122.37	3.34	3.68
(c)	Lines and Cable Network	4.56	-	-	4.56	5.28	0.22
9	Asset under lease	-	-	-	-	-	-
	<b>Total</b>	<b>1283.64</b>	<b>-</b>	<b>-</b>	<b>1283.64</b>	<b>-</b>	<b>55.18</b>

Commission approves Depreciation for the Control Period FY 2018-19, FY 2019-20, FY 2020-21 at Rs.55.07 Crore, Rs.55.18 Crore. Rs.55.18 Crore respectively.



## 5.6 Interest on Loan Capital (MLHEP)

### Petitioner's Submission

MePGCL has projected Interest on Loan Capital on the outstanding balances at Rs.78.29 Crore, Rs.64.81 Crore respectively for FY 2016-17 (Actual), FY2017-18(Estimated). The Licensee has claimed Interest on Loan Capital adopting the closing balance of the FY 2017-18(To be audited) for the Control period FY 2018-19, FY 2019-20, FY 2020-21 at Rs. 49.27 Cr, Rs. 40.50 Cr, Rs.34.81 Cr respectively as detailed in the Table below.

**Table 5.10: Interest and Finance Charges for the Control period projected for MLHEP**

(Rs. Cr)						
S. No	Particulars	FY 2016-17 (Actuals)	FY 2017-18 (Estimated)	FY 2018-19 (Projected)	FY 2019-20 (Projected)	FY 2020-21 (Projected)
1	Opening Balance	704.62	641.41	465.65	362.88	316.08
2	Addition during the year	-	1.13	4.11	4.13	4.14
3	Repayment during the year	63.21	176.89	109.32	50.93	49.74
4	Closing Balance	641.41	465.65	362.88	316.08	270.48
5	Average Interest Rate	11.63%	11.71%	11.89%	11.93%	11.87%
6	Interest Accrued	78.29	62.51	49.27	40.50	34.81
7	Interest Capitalized	-	-	-	-	-
8	ADD: Finance Charge and MeECL Apportioned	-	-	-	-	-
9	Interest and Finance Charges	78.29	62.51	49.27	40.50	34.81

**Table 5.11: Details of Loans for the Year 2017-18, (Estimated for MLHEP)**

(Rs.Lakhs)							
S. No	Particulars	Opening Balance	Rate of Interest (%)	Addition during the year	Repayment during the year	Closing Balance	Amount of Interest Accrued
1	2	3	4	5	6	7	8
1	REC (MLHEP)	20875.99	11.07	-	2530.42	18345.57	2170.91
2	PFC (MLHEP)	18922.94	13.25	-	1610.46	17312.47	2400.60
3	FEDERAL (ML)	1547.62	13.55	-	714.29	833.33	161.31
4	CBI (ML)	3359.12	12.75	-	833.33	2525.78	375.16
5	BSE Bonds (ML)	17000.00	10.37	-	12000.00	5000.00	1140.70
6	<b>Total</b>	<b>61705.67</b>		<b>0.00</b>	<b>17688.50</b>	<b>44017.16</b>	<b>6248.68</b>
7	State Government Loan	2435.16	9.31	113.09	-	2548.25	2.32
8	<b>Grand Total</b>	<b>64140.83</b>	-	-	<b>17688.50</b>	<b>46565.41</b>	<b>6251.00</b>

**Table 5.12: Schedule of Loans for FY 2018-19 for MLHEP: 2018-19 (Projected)**

(Rs. Lakhs)

S. No	Particulars	Opening Balance	Rate of Interest (%)	Addition during the year	Repayment during the year	Closing Balance	Amount of Interest Accrued
1	2	3	4	5	6	7	8
1	REC (MLHEP)	18345.57	11.07	-	2530.42	15815.15	1890.80
2	PFC (MLHEP)	17312.47	13.25	-	1610.46	15702.01	2187.21
3	FEDERAL (ML)	833.33	13.55	-	714.29	119.05	64.52
4	CBI (ML)	2525.78	12.75	-	833.33	1692.45	268.91
5	BSE Bonds (ML)	5000.00	10.37	-	5000.00	0.00	259.25
6	<b>Total</b>	44017.16	-	-	10688.50	33328.66	4670.69
7	State Government Loan	2548.25	9.31	411.13	243.15	2959.38	256.38
8	<b>Grand Total</b>	46565.41	-	411.13	10931.65	36288.04	4927.07

**Table 5.13: Schedule of Loans for FY 2019-20 for MLHEP: 2019-20 (Projected)**

(Rs. Lakhs)

S. No	Particulars	Opening Balance	Rate of Interest (%)	Addition during the year	Repayment during the year	Closing Balance	Amount of Interest Accrued
1	2	3	4	5	6	7	8
1	REC (MLHEP)	15815.15	11.07	-	2530.42	13284.73	1610.68
2	PFC (MLHEP)	15702.01	13.25	-	1610.46	14091.55	1973.82
3	FEDERAL (ML)	119.05	13.55	-	119.0	0.00	8.07
4	CBI (ML)	1692.45	12.75	-	833.33	859.12	162.66
5	<b>Total</b>	33328.66	-	-	5093.27	28235.40	3755.23
6	State Government Loan	2959.38	-	413.19	-	3372.57	294.75
7	<b>Grand Total</b>	36288.04	-	413.19	5093.27	31607.96	4049.98

**Table 5.14: Schedule of Loans for FY 2020-21 for MLHEP: 2020-21 (Projected)**

(Rs. Lakhs)

S. No	Particulars	Opening Balance	Rate of Interest (%)	Addition during the year	Repayment during the year	Closing Balance	Amount of Interest Accrued
1	2	3	4	5	6	7	8
1	REC (MLHEP)	13284.73	11.07	-	2530.42	10754.31	1330.56
2	PFC (MLHEP)	14091.55	13.25	-	1610.46	12481.09	1760.44
3	CBI (ML)	859.12	12.75	-	83.33	25.78	56.41
4	<b>Total</b>	28235.40	-	-	4974.22	23261.18	3147.41
5	State Government Loan	3372.57	-	414.22	-	3786.78	333.27
6	<b>Grand Total</b>	31607.96	-	414.22	4974.22	27047.97	3480.68

**Commission's Analysis**

As per the Regulation 32 of MSERC MYT Regulations 2014, Interest on Loan Capital

shall be allowed for tariff as per the schedule of loan, repayment, terms and conditions of Loan Agreement and lending rate specified there in.

Moratorium availed if any by the Generation Company the depreciation provided for in the tariff during the period of moratorium shall be treated as repayment during these years and interest on Loan Capital shall be calculated accordingly.

MePGCL has not filed petition for true-up of business for FY2015-16 and FY 2016-17 along with audited accounts, the opening balance for FY 2018-19 is adopted as projected in the petition at Page No.14 & 15 for Computation of Interest on Loan Capital for MLHEP. The interest on State Government Loan is not considered. The Licensee has projected Capitalization of Interest at Rs. 51.08 Crore, Rs. 47.31 Crore, Rs. 43.53 Crore for Control period with the combined Loan Profile for MLHEP and Old Projects vide Para 5.5 of the Petition. Commission considers the Capitalization on Pro-rata basis of approved loan outstanding separately for MLHEP and MePGCL Old Projects. The Interest Cost projected for MeECL shall be considered in the true up exercise.

**Commission accordingly considers Interest on Loan Capital for MLHEP as computed in the tables below for the Control Period FY 2018-19, FY2019-20, FY2020-21 after adjustment of Capitalisation proportionately.**

**Table 5.15: Interest and Finance Charges for MLHEP: 2018-19 (Approved)**

(Rs. Crore)							
S. No	Particulars	Opening Balance	Rate of Interest (%)	Addition during the year	Repayment during the year	Closing Balance	Amount of Interest Accrued
1	2	3	4	5	6	7	8
1	REC (MLHEP)	183.46	11.07	-	25.30	158.15	18.91
2	PFC (MLHEP)	173.13	13.25	-	16.11	157.02	21.87
3	FEDERAL (ML)	8.33	13.55	-	7.14	1.19	0.645
4	CBI (ML)	25.26	12.75	-	8.33	16.92	2.69
5	BSE Bonds (ML)	50.00	10.37	-	50.00	0.00	2.59
6	<b>Total</b>	440.17		-	106.88	333.28	46.71
7	Capitalization on Pro-rata basis	-	-	-	-	-	(-) 17.49

S. No	Particulars	Opening Balance	Rate of Interest (%)	Addition during the year	Repayment during the year	Closing Balance	Amount of Interest Accrued
8	Net Interest	-	-	-	-	-	29.22

Table 5.16: Interest and Finance Charges for MLHEP: 2019-20 (Approved)

(Rs. Crores)

S. No	Particulars	Opening Balance	Rate of Interest (%)	Addition during the year	Repayment during the year	Closing Balance	Amount of Interest Accrued
1	2	3	4	5	6	7	8
1	REC (MLHEP)	158.15	11.07	-	25.30	132.85	16.11
2	PFC (MLHEP)	157.02	13.25	-	16.10	140.92	19.74
3	FEDERAL (ML)	1.19	13.55	-	1.19	0.00	0.08
4	CBI (ML)	16.92	12.75	-	8.33	8.59	1.63
5	<b>Total</b>	333.28		-	50.92	282.36	37.55
6	Capitalization on Pro- rata basis	-	-	-	-	-	(-)12.78
7	<b>Net Interest</b>	-	-	-	-	-	24.78

Table 5.17: Interest and Finance Charges for MLHEP 2020-21 (Approved)

(Rs. Crores)

S.No	Particulars	Opening Balance	Rate of Interest (%)	Addition during the year	Repayment during the year	Closing Balance	Amount of Interest Accrued
1	2	3	4	5	6	7	8
1	REC (MLHEP)	132.85	11.07	-	25.3	107.54	133.31
2	PFC (MLHEP)	140.92	13.25	-	16.11	0.26	17.60
3	CBI (ML)	<b>8.59</b>	8.59	-	8.33	25.78	0.56
4	<b>Total</b>	282.35	-	-	49.74	133.58	31.47
5	Capitalization on Pro- rata basis	-	-	-	-	-	(-)9.27
6	<b>Net Interest</b>	-	-	-	-	-	22.20

**Table 5.18 : Approved interest and Finance Charges for Control Period**  
(Rs. Cr)

Particulars	FY 2018-19	FY 2019-20	FY 2020-21
Projected by MePGCL	49.27	40.50	34.81
Approved by MSERC	29.22	24.77	22.20

## 5.7 Interest on Working Capital for MLHEP

### Petitioners Submission

MePGCL has projected Interest on Working Capital for the Control Period FY 2018-19, FY 2019-20, FY 2020-21 along with Provisional Interest for FY 2016-17 and Estimated Claim for FY 2017-18.

The Interest on working Capital is projected by the Licensee as detailed in the table 5.19.

**Table 5.19: Interest on Working Capital for MLHEP**

		(Rs. Cr)				
S. No	Particulars	FY 2016-17 (Provisional)	FY 2017-18 (Estimated)	FY 2018-19 (Projected)	FY 2019-20 (Projected)	FY 2020-21 (Projected)
1	Operation and Maintenance Expenses for One Month	2.52	2.66	2.82	2.98	3.15
2	Maintenance Spare at 15% O & M	4.53	4.79	5.07	5.36	5.66
3	Two months Receivable of AFC	38.28	36.61	34.30	33.17	32.56
S. No	Particulars	FY 2016-17 (Provisional)	FY 2017-18 (Estimated)	FY 2018-19 (Projected)	FY 2019-20 (Projected)	FY 2020-21 (Projected)
4	<b>Working Capital required</b>	<b>45.33</b>	<b>44.07</b>	<b>42.19</b>	<b>41.50</b>	<b>41.37</b>
5	SBI short Term PLR	14.05 %	14.05 %	14.05 %	14.05 %	14.05 %
6	<b>Amount of interest on Working capital</b>	<b>6.37</b>	<b>6.19</b>	<b>5.93</b>	<b>5.83</b>	<b>5.81</b>

### Commission's analysis

Regulation 34 of MSERC Regulations 2014 provides for allowance of Interest on Working Capital for Hydro Power Generating stations for purpose of ARR and determination of Tariff (AFC).

The following components shall be considered for Computation of Interest on working Capital.

- a. O & M expenses for one (1) month
- b. Maintenance Spares at 15 % of O & M Expenses escalated at 6% from the date of Commercial Operation.
- c. Receivables equivalent to two (2) months of Fixed Cost.

The Licensee has not filed true up petition for FY 2016-17 together with audited accounts, Commission does not approve interest on Working Capital for FY 2016-17 and estimates for FY 2017-18. Commission has computed interest on Working Capital for the control period.

**Table 5.20: Interest on Working Capital (MLHEP)**

(Rs. Cr)				
S .No	Particulars	FY 2018-19	FY 2019--20	FY 2020-21
1	O & M Expenses for 1 Month (Rs.Crore)	2.50	2.64	2.79
2	Maintenance spares at 15% of O & M expenses escalated at 6 % from the COD	4.77	5.04	5.32
3	Receivable for Two(2) months of (AFC) Fixed Costs	26.86	26.43	26.30
4	Total working Capital Requirement	34.13	34.11	34.41
5	Interest at 14.05%	4.80	4.79	4.83

**Table 5.21: Approved Interest on Working Capital for MLHEP**

(Rs. Cr)			
Particulars	FY 2018-19	FY 2019-20	FY 2020-21
Projected by MePGCL	5.93	5.83	5.81
Approved by MSERC	4.80	4.79	4.83

**Commission considers Interest on working Capital for Control Period FY 2018-19, FY 2019-20 and FY 2020-21 at Rs. 4.80 Crore, Rs. 4.79 Crore, Rs. 4.83 Crore respectively.**

## 5.8 Income Tax for MLHEP

### **Petitioner's submission**

MePGCL has submitted that Income tax shall be claimed in the subsequent filings for true-up.

### **Commission's analysis**

Regulation 35 of MYT Regulations 2014 specifies that Commission in its MYT order shall provisionally approve Income tax payable for each year of the Control Period, if any based on the actual audited accounts available for the applicant subject to prudence check.

**Since the Licensee has not filed any actual Income tax paid as per the audited accounts, Commission do not consider Income tax for the MYT Control Period.**

## 5.9 Non-Tariff Income for MLHEP

### **Petitioner's submission**

MePGCL has submitted that Non-Tariff Income against MLHEP may be approved at Rs.0.034 Crore, Rs, 0.037 Crore, Rs.0.0412 Crore for the MYT Control period FY 2018-19, FY 2019-20, FY 2020-21 respectively.

### **Commission's Analysis**

The Licensee has not filed audited accounts for MLHEP from FY 2013-14 onwards, as such the Commission does not estimate specific Non- tariff Income for MLHEP.

**The Non- Tariff Income for MLHEP as projected by Licensee is considered at Rs. 0.034 Crore, Rs.0.0375 Crore, Rs.0.041 Crore for MYT Control Period FY 2018-19, FY 2019-20, FY 2020-21 respectively.**

## **5.10 ARR for Old Plants including Sonapani for 2<sup>nd</sup> Control Period of FY 2018-19 to FY 2020-21**

### **Approach**

In accordance with the provisions of the MYT Regulations, 2014, MePGCL has submitted ARR for FY 2018-19, FY 2019-20 and FY 2020-21 based on the unaudited (C&AG) financials of FY 2015-16, pre-audited financials of FY 2016-17 and Business Plan for FY 2019-2021 which has been approved by the Honorable Commission in the order dated 15<sup>th</sup> November, 2017.

The MYT Regulations, 2014 requires capacity details of each hydro generating station and accordingly station wise tariffs are to be computed. It is submitted that post transfer scheme, the segregated closing balances available as on 31<sup>st</sup> March 2012 for MePGCL provide for Gross Block details (Gross Fixed Assets) only i.e., individual project cost details are unavailable. In the absence of these individual details, it is submitted that the ARR of MePGCL may be allowed to each generation station as per their installed capacity.

### **Eligibility Criteria**

1. For the purpose of these regulations, generation from all types of Renewable Energy sources, as approved by Ministry of New and Renewable Energy (MNRE), Government of India shall be considered and such generating stations shall be collectively referred to as "RE based Generating Stations".
2. At present, generation from the following sources and technologies shall qualify to be covered under these regulations.
  - (a) Wind power Project – using wind turbine generators
  - (b) Small hydro project- located at the sites approved by state Nodal Agency / State

Government using new plant and machinery and installed power plant capacity to be lower than or equal to 25 MW as single location.

It is submitted that the existing small hydro projects of MePGCL are using Old plant/ machinery and therefore they do not qualify for determination of tariff under the RE



Regulations, 2014 as well. Therefore, it is submitted before Hon’ble Commission and request to determine ARR of the existing small hydro projects as per the guidelines of MYT Regulations, 2014. In past orders also, the Hon’ble Commission had taken the approach for calculating combined ARR for all Old Plants together and allocation of ARR for each station (including small hydro) based on installed capacity.

MePGCL has proposed for computation of consolidated fixed charges for the following Old Stations and their tariff based on the fixed charges.

1. Umiam Stage- I
2. Umiam Stage-II
3. Umiam – Umtru Stage-III
4. Umiam- Umtru Stage-IV
5. Umtru
6. Sonapani

**Table 5.22: Summary of AFC for MePGCL Old Plants for Control period (Projected)**

(Rs. Cr)

S. No	Particulars	FY 2018-19 (Projected)	FY 2019-20 (Projected)	FY 2020-21 (Projected)
		Old Plants + Sonapani (1-2)	Old Plants + Sonapani (1-2)	Old Plants + Sonapani (1-2)
1	Interest and Finance charges	33.28	43.80	57.20
2	Depreciation	12.34	15.49	11.62
3	O & M expenses	83.37	87.80	92.59
4	Employee expenses	100.54	106.00	11.87
5	R & M expenses	9.78	10.32	10.88
6	A & G expenses	6.83	7.21	7.60
7	Interest on working Capital	7.59	8.21	8.89
8	Return on Equity	58.50	61.56	70.11
9	SLDC Charges	1.21	1.27	1.33
10	Net Prior Period Items/ Provision for Bad debts	25.00	25.00	25.00
11	Total Annual Fixed cost	221.29	243.13	266.73
12	Less: Non- Tariff income	13.13	14.44	15.88
13	Net Annual Fixed Cost	208.16	228.69	250.85

## 5.11 Analysis of ARR for MYT Control period FY 2018-19 to FY 2020-21 in respect of MEPGCL Old plants and determination of tariff for FY 2018-19

### 5.11.1 Gross Fixed Assets (Excluding MLHEP) MePGCL Old Projects

#### Petitioner's Submission

MePGCL has projected GFA for the Control Period FY 2018-19, FY 2019-20 and FY 2020-21 as detailed in the table 5.23.

**Table 5.23: Gross Fixed Assets for MePGCL Old Plants (Excluding MLHEP)**

(Rs. Cr)						
S. No	Particulars	FY 2016-17 (Provisional)	FY 2017-18 (Estimated)	FY 2018-19 (Projected)	FY 2019-20 (Projected)	FY 2020-21 (Projected)
1	Opening GFA	428.50	444.52	444.52	472.94	586.11
2	Additions during the year	16.13	-	28.39	113.16	468.57
3	Retirements during the year	0.11	0.00	0.00	0.00	0.00
4	<b>Closing GFA</b>	<b>444.52</b>	<b>444.52</b>	<b>472.90</b>	<b>586.11</b>	<b>1054.68</b>

The Licensee stated that GFA is projected in the Table is due to Major Asset addition during the Control Period on completion of R & M of stage III Umiam-Umtru power stations by March 2021, which will Cost around Rs.408 Crore as approved in the Business Plan for Control Period by the Commission on 15.11.2017. MePGCL requested to approve the GFA of the MePGCL old plants & Sonapani as projected.

#### Commission's Analysis

Commission had considered GFA of MePGCL old plants at Rs391.24 Crore as on 31.03.2015 in the 1<sup>st</sup> MYT Control Period, and addition of Rs. 65.68 Crore projected by the MePGCL for FY 2015-16 to FY 2017-18 was not considered by the Commission. Commission held that prior approval of new investments including Sonapani shall be obtained, till such time no new investment will be allowed during the Control period. Accordingly GFA of Old plants and Sonapani considered at Rs. 49.39 Crore for opening Balance of 2<sup>nd</sup> Control Period. Commission had issued Directive No.5 in the ARR and

Tariff Order for FY 2017-18 that all the Old plants (except Sonapani & Umiam Stage-IV) have served their life and the value of the assets has to be deleted from the Asset base. The Licensee has not responded to the Directive and projected GFA including old Plants- Assets against which Return on equity and Depreciation etc., shall not be admissible for Tariff (AFC) for FY 2018-19 to FY 2020-21.

Commission considering the investment Projected for Renovation and Modernization of Umiam –III & Umtru as approved in the Business Plan for 2<sup>nd</sup> Control Period approves the GFA as computed in this Order for Capital Investment for the FY 2018-19, FY 2019-20 and FY 2020-21 detailed in the table 5.24 is approved.

**Table 5.24: Approved Gross Fixed Assets for MePGCL 's Old Plants (Excluding MLHEP)**

						(Rs. Cr)
S. No	Particulars	FY 2016-17 (Approved)	FY 2017-18 (Approved)	FY 2018-19 (Approved)	FY 2019-20 (Approved)	FY 2020-21 (Approved)
1	Opening GFA	49.39	49.39	49.39	85.94	171.82
2	Additions during the year	-	-	36.55	85.88	95.98
3	Retirements during the year	-	0.00	0.00	0.00	0.00
4	<b>Closing GFA</b>	<b>49.39</b>	<b>49.39</b>	<b>85.94</b>	<b>171.82</b>	<b>267.80</b>

**Commission shall however conduct Midterm performance review before the ARR for FY 2020-21 is finalized and suitable change will be carried out wherever necessary.**

## 5.12 Return on Equity

### Petitioner's Submission

MePGCL has projected Return on Equity for the Old Plants including Sonapani (SHP) and MLHEP for 2<sup>nd</sup> MYT Control Period FY 2018-19, FY 2019-20, FY 2020-21 and computed ROE at Rs. 112.24 Crore, Rs. 115.31 Crore and Rs. 123.86 Crore respectively as detailed in the Table 5.25.

Table5.25: ROE for MePGCL's Old Stations

Particulars	(Rs. Cr)				
	FY 2016-17 (Provisional)	FY 2017-18 (Estimated)	FY 2018-19 (Projected)	FY 2019-20 (Projected)	FY 2020-21 (Projected)
<b>RoE –MePGCL</b>					
Opening Equity Base	782.79	796.78	796.78	806.66	840.61
Addition of Equity	13.99	0.00	9.88	33.95	88.25
Closing Equity Base	796.78	796.78	806.66	840.61	928.87
<b>Average Equity Base</b>	<b>789.79</b>	<b>796.78</b>	<b>801.72</b>	<b>823.64</b>	<b>884.74</b>
RoE (%)	14%	14%	14%	14%	14%
<b>Return on Equity (in Rs. Cr.)</b>	<b>110.57</b>	<b>111.55</b>	<b>112.24</b>	<b>115.31</b>	<b>123.86</b>
<b>RoE-MLHEP</b>					
Opening Equity	383.76	383.76	383.76	383.95	383.95
Addition of Equity	-	0.00	0.20	0.00	0.00
Closing Equity	383.76	383.76	383.95	383.95	383.95
Equity Base	383.76	383.76	383.86	383.95	383.95
RoE (%)	14%	14%	14%	14%	14%
<b>Return on Equity (in Rs. Cr.)</b>	<b>53.73</b>	<b>53.73</b>	<b>53.74</b>	<b>53.75</b>	<b>53.75</b>
<b>RoE-MePGCL's Old Plants (Excluding MLHEP)</b>					
Opening Equity Base	399.04	413.03	413.03	422.71	456.66
Addition of Equity	13.99	0.00	9.68	33.95	88.25
Closing Equity Base	413.03	413.03	422.71	456.66	544.91
<b>Average Equity Base</b>	<b>406.03</b>	<b>413.03</b>	<b>417.87</b>	<b>439.68</b>	<b>500.78</b>
RoE (%)	14%	14%	14%	14%	14%
<b>Return on Equity (in Rs. Cr.)</b>	<b>56.84</b>	<b>57.82</b>	<b>58.50</b>	<b>61.56</b>	<b>70.11</b>

The Licensee submitted that the projection is made for ROE for the actual Equity infusion till FY 2016-17 and projected Equity infusion as per the approved Business Plan for FY 2018-19 to FY 2020-21.

MePGCL requested to approve the ROE as per the submission for the Control Period FY 2018-19 to FY 2020-21.

#### **Commission's Analysis**

Commission had approved the Return on Equity for MePGCL (excluding MLHEP) for 1<sup>st</sup> Control Period FY 2015-16, FY 2016-17, FY 2017-18 at Rs. 9.43 Crore per year.

Subsequently Commission had approved ROE at Rs.12.76, Rs. 12.79 Crore in the review Orders dated 27.03.2017 for the FY 2013-14 and FY 2014-15 respectively (Provisional true-up) as per the Regulation 31 read with Regulation 29 of MSERC Regulations 2011 considering the Debt equity ratio.

The Statement of Accounts for FY 2013-14, FY 2014-15 are yet to be trued down on filing of C & AG report. The closing GFA as on 31.03.2015 as per audited accounts (excluding MLHEP) Note 10 accounted to be Rs. 305.17 Crore is not considered. ROE has been allowed for the Control Period after excluding the Value of GFA of Old Plants whose life term is completed and Commission has considered the GFA of Umiam- IV and Sonapani at Rs. 49.39 Crore. The Licensee has not filed petition for true up of the Business carried out from FY 2015-16 onwards together with audited accounts, Commission considers the equity base of FY 2014-15 at Rs. 14.82 Crore considering the GFA at Rs. 49.39 crore being 30 % of the GFA for computation of Return on Equity for 2<sup>nd</sup> MYT Control Period FY 2018-19 to FY 2020-21.

Accordingly the Return on Equity Computed is shown in the Table 5.26:

**Table 5.26: Approved Return on equity for Control Period for Old Projects**

(Rs. Cr)				
S. No	Particulars	FY 2018-19	FY 2019-20	FY 2020-21
1	Opening Equity as on 31.03.2018	14.82	25.78	51.54
2	Additions during the year 30% of GFA	10.96	25.76	28.79
3	Closing Equity as on 31.03.19	25.78	51.54	80.33
4	Average Equity	20.30	38.66	65.94
5	Return on Equity at 14%	2.84	5.41	9.23

**Commission approves Return on equity for the Control Period FY 2018-19, FY 2019-20, FY 2020-21 at Rs.2.84 Crore, Rs. 5.41 Crore, Rs. 9.23 Crore respectively for Old projects.**

### 5.13 Interest and Finance Charges for MePGCL Old projects

#### Petitioner's Submission

MePGCL has projected Interest and Finance Charges for the Control Period FY 2018-19, FY 2019-20, FY 2020-21 (including MLHEP) as detailed in the table 5.27.

**Table 5.27: Loans Interest & Finance Charges**

Particulars	(Rs. Cr)			
	FY 2017-18 (Estimated)	FY 2018-19 (Projected)	FY 2019-20 (Projected)	FY 2020-21 (Projected)
Loans Opening Balance	1,224.41	1,145.78	1,112.19	1,166.74
Loans Addition During the Year	118.55	117.64	149.83	179.72
Repayment during the year	197.18	151.23	95.28	94.09
Closing Balance	1,145.78	1,112.19	1166.74	1252.37
<i>Average Interest Rate</i>	11.57%	11.40%	11.12%	10.80%
<b>Interest Accrued</b>	<b>137.07</b>	<b>128.74</b>	<b>126.70</b>	<b>130.64</b>
Less: Interest Capitalized	52.15	51.08	47.31	43.53
Add: Finance Charge and MeECL Apportioned	4.90	4.90	4.90	4.90
<b>Interest and Finance Charges for MePGCL</b>	<b>89.81</b>	<b>82.56</b>	<b>84.30</b>	<b>92.00</b>
Interest and Finance Charges for MLHEP	64.81	49.27	40.50	34.81
<b>Interest and Finance Charges for Old Plants Including Sonapani</b>	<b>25.01</b>	<b>33.28</b>	<b>43.80</b>	<b>57.20</b>

MePGCL has proposed Capitalization of Interest and Finance charges with the combined loan profile for MLHEP & MePGCL Old projects at Rs. 51.08 Crore, Rs. 47.31 Crore, Rs. 43.53 Crores for the Control Period for FY 2018-19, FY 2019-20, FY 2020-21 respectively. The Licensee has also projected and added the Interest Cost of MeECL at Rs.4.90 Crore each year of the Control Period.

The Licensee has requested to approve the Interest and Finance Charges for Old Plants including Sonapani (SHP) for the Control Period at Rs. 33.28 crore, Rs. 43.80 Crore, Rs. 57.20 Crore for FY 2018-19, FY 2019-20, FY 2020-21 respectively.

#### Commissions Analysis

Commission had approved the Business plan for Control Period FY 2018-19, FY 2019-20, FY 2020-21 in which the Capital Investment has been approved for Renovation

&Modernization of existing old plants and Capital expenditure against new and up-coming projects as detailed in the Table No. 5.29. The loan schedule filed in the petition does not cover loans of OECF and JBIC funded for Umiam Stage I &II for Rs. 13.77 Crore and Rs. 11.28 Crore respectively.

### 5.13.1 Summary of Capital Expenditure (CAPEX)

The summary of project-wise capital expenditure and funding pattern of the capex as shown in the table 5.28 is approved by the Commission on 15.11.2017.

**Table 5.28:CAPEX- summary**

Sl. No	Station	CAPEX (Rs. Cr)	Funding Pattern (Rs. Cr)		
			Debt	Equity	Grant
<b>Existing Stations</b>					
1	Umiam Stage-I	29.57	4.42	19.29	5.86
2	Umiam Stage-II	9.09	1.82	3.63	3.64
3	Umiam Stage-III	431.23	20.91	116.56	293.76
4	Umiam Stage-IV	44.01	23.34	7.65	13.01
5	Umtru HEP	83.18	11.67	20.96	50.55
6	Sonapani	0.38	0.34	0.04	-
7	Leshka	4.55	4.10	0.45	-
	<b>Sub-Total</b>	<b>602.01</b>	<b>67.5</b>	<b>168.58</b>	<b>366.82</b>
<b>On-going projects</b>					
1	Ganol SHP	356.43	146.9	62.96	146.57
2	Lakroh MHP	20.48	6.46	2.77	11.25
	<b>Sub-Total</b>	<b>376.91</b>	<b>153.34</b>	<b>65.73</b>	<b>157.82</b>
<b>Up Coming project</b>					
1	Riangdo MHP	33.99	11.40	2.59	20.00
	<b>Sub-Total</b>	<b>33.99</b>	<b>11.40</b>	<b>2.59</b>	<b>20.00</b>
<b>Projects under Survey &amp; Investigation</b>					
1	Umngot HEP	7.2	0.72	6.48	-
2	Leshka HEP-II	7.72	0.77	6.95	-
3	Umngi HEP	5.69	0.57	5.12	-
4	Selim HEP	7.74	0.77	6.97	-
5	Mawblei HEP	7.72	0.77	6.95	-
6	Nongkohlait HEP	4.956	0.496	4.46	-
	<b>Sub-Total</b>	<b>41.026</b>	<b>4.096</b>	<b>36.93</b>	<b>0</b>
<b>New Works</b>					
1	Implementation of Solar power parks	12.65	5.355	3.495	3.8
	<b>Sub-Total</b>	<b>12.65</b>	<b>5.355</b>	<b>3.495</b>	<b>3.8</b>
	<b>Total</b>	<b>1066.586</b>	<b>240.811</b>	<b>277.325</b>	<b>548.44</b>

Table 5.29 : Project-wise/scheme-wise capital investment approved for FY2017-18 and MYT period from FY 2018-19 to FY 2020-21

Sl. No.	Name of the Scheme/Project	Capacity	Approved Outlay	Source of funding				up to FY 2017-18		FY 2018-19		FY 2019-20		FY 2020-21		FY 2021-22		Total	
				Grant	Equity	Loan	Total	Capex	Capitalisation	Capex	Capitalisation	Capex	Capitalisation	Capex	Capitalisation	Capex	Capitalisation	Capex	Capitalisation
				5	6	7	8 = (5+6+7)	9	10	11	12	13	14	15	16	17	18	19= (9+11+13+15+17)	20= (10+12+14+16+18)
	<b>Existing Projects</b>																		
1	Umiam Stage-I	4 x 9 MW	29.57	5.86	19.29	4.42	29.57			13.99		11.08	13.99	4.50	15.58			29.57	29.57
2	Umiam Stage-II	2 x 10 MW	9.09	3.64	3.63	1.82	9.09			2.64	2.64	5.14	5.14	1.31	1.31			9.09	9.09
3	Umiam Stage-III	2 x 30 MW	431.23	293.76	116.56	20.91	431.23			8.84		141.80		280.59		431.23	431.23	431.23	431.23
4	Umiam Stage-IV	2 x 30 MW	44.01	13.01	7.65	23.35	44.01			21.53		8.98	21.53	13.50	22.48			44.01	44.01
5	Umtru HEP	4 x 2.8 MW	83.18	50.55	20.96	11.67	83.18			22.20		39.00	22.20	21.98	39.00		21.98	83.18	83.18
6	Myntdu Leshka HEP	3 x 42 MW	4.55		0.45	4.10	4.55			2.00		2.55	4.55					4.55	4.55
7	Sonapani	1 x 1.5 MW	0.38		0.04	0.34	0.38					0.38	0.38					0.38	0.38
	<b>Ongoing Projects</b>																		
8	Ganol Small HEP	3 x 7.5 MW	356.43	146.57	146.90	62.96	356.43	356.43	356.43									356.43	356.43
9	Lakroh Mini Hydrel	1 x 1.5 MW	20.48	11.25	6.46	2.77	20.48	18.48		2.00	20.48							20.48	20.48
	<b>Upcoming Projects</b>																		
10	Riangdo	3 x 1 MW	33.99	20.00	2.59	11.40	33.99					10.00		13.99		10.00	33.99	33.99	33.99
	<b>Survey &amp; Investigation</b>																		
11	Umngot		7.20		6.48	0.72	7.20	4.87		2.33			7.20					7.20	7.20
12	Leshka HEP – II		7.72		6.95	0.77	7.72	1.82		3.54		2.36	7.72					7.72	7.72
13	Umngi HEP		5.69		5.12	0.57	5.69	5.69		5.69								5.69	5.69
14	Selim HEP		7.74		6.97	0.77	7.74	4.74		3.00	7.74							7.74	7.74
15	Mawblei HEP		7.72		6.95	0.77	7.72	4.55		1.01		2.16	7.72					7.72	7.72
16	Nongkohlait HEP		4.96		4.46	0.50	4.96	1.40		0.43		2.26		0.87	4.96			4.96	4.96
	<b>Solar</b>																		
17	Solar Parks		12.65	3.80	3.50	5.35	12.65					12.65		12.65				12.65	12.65
	<b>Total</b>		<b>1066.59</b>	<b>548.44</b>	<b>364.96</b>	<b>153.19</b>	<b>1066.59</b>	<b>397.98</b>	<b>356.43</b>	<b>83.51</b>	<b>36.55</b>	<b>238.36</b>	<b>90.43</b>	<b>336.74</b>	<b>95.98</b>	<b>10.00</b>	<b>487.20</b>	<b>1066.59</b>	<b>1066.59</b>



The Licensee has not filed petition for true up of Business Carried out from FY 2015-16 with audited accounts, therefore old out-standing loans projected in the Combined profile is segregated project wise old and MLHEP and interest computed for Control Period.

The Licensee has projected Rs. 154.08 Crore Debt for implementation of proposed Capital investment the Business plan for the Control period FY 2018-19 to FY 2020-21. MePGCL has furnished schedule of loans (source wise) in the format 7 Page 11 and 12 of the Petition for MePGCL which includes loans outstanding against MLHEP. The Outstanding loans projected against New- Umtru and Lakroh is considered for Interest cost The interest cost has been allowed against MLHEP vide table No5.15 to 5.17 in this order separately .The remaining claim to be considered for PFC (NUHEP) (Additional ) PFC GEL (Lakroh MHEP) and , the loan from Holding Corporation and State Government Loan.

#### **5.13.2 New Umtru HEP (2 X 2MW)**

Licensee has stated that the COD of the project is 1.07.2017 Commission had approved provisional Tariff of Rs. 2.18 Ps/kWh considering Fixed Cost of Rs. 77.78 Crore for the FY 2017-18 (01.07.2017 to 31.03.2018) for 9 months on 15.11.2017. The capital cost of the project provisionally considered at Rs. 518.54 Crore by the Commission.

Capital Cost RS. 518.54 Crore

Debt 70 % Rs. 362.98 Crore

Equity 30 % 155.56 Crore

Actual equity infused is shown at Rs. 128.37 Crore.

The loan to be considered at 70 % of Capital Cost is Rs. 362.98 Crore.

Whereas Licensee has projected opening balance loan at Rs. 432.44 Crore for FY 2018-19 for MYT Control Period which will be limited to Rs. 362.98 Crore. The MePGCL had not projected any further investment against New- Umtru HEP in the Business plan for the Control Period FY 2018-19 to FY 2020-21.The interest against NUHEP is considered with repayment of loan as projected by the licensee for the control period.

As per the approved Capital Cost of Rs. 518.54 Crore (Provisional), Interest on loan shall be admissible on 70 % of the capital Cost as per the Regulations. The Equity deployed is less than 30 % (Rs. 128.37 Crore) actual equity shall be considered for Return on Equity as per the Regulations. The Licensee shall file petition for obtaining final tariff by submitting the required approvals from the competent authority, as per the Regulation 28 of MSERC 2014. Commission considers that no depreciation and ROE to be allowed till the final tariff is approved for New Umtru HE ( 2X 20 MW) Project. The Interest on borrowed loans is considered for Debt servicing out of the provisional tariff revenue received during the control period.

### **5.13.3 Lakroh (1 X 1.5 MW)**

Commission had considered the Lakroh 1 X 1.5 mw (MHP) Project cost at Rs. 15.34 Crore for a designed energy of 11.01 MU in the tariff order for FY 2013-14. The provisional tariff of 0.74 Ps/kWh has been allowed for the energy to be supplied to MePDCL. The Licensee (MePGCL) has not filed petition for approval of Capital Cost and final tariff – till the 1<sup>st</sup> MYT Control period FY 2015-16 to FY 2017-18. Tariff Orders were issued on 30.03.2015. The Licensee has not disclosed the Revenue if any generated out of the provisional tariff so far. Licensee has projected Capital Investment of Rs. 20.48 Crore (as against Rs.15.34 Crore initially approved) in the Business plan for the Control Period FY 2018-19 to FY 2020-21. Expected Date of Commissioning of the project stated to be September 2018. Any Annual Fixed Charges shall become admissible only after final tariff has been approved.

A loan of Rs.2.77 Crore is projected in the Business Plan against which the opening balance of loan shown in the schedule for Rs. 3.92 crore at 11.00 % is allowed for interest for the FY 2018-19, enabling to repay the debt. MePGCL shall seek approval of final tariff as per regulation 28 of MSERC regulations 2014.

**5.13.4 Commission considers that holding Corporation (MeECL) is not a financial Institution and cannot carry out the lending Business, the interest claimed by the Licensee is not considered. The purpose of Loan drawal from State Government is not mentioned in the Loan schedule, Commission do not consider Interest Cost for Tariff.**

MePGCL has not projected any capital Loans out of the approved capital investment plan for the control period. Summing up of the above analysis Commission considers the Interest and Finance charges for MePGCL Old projects (Excluding MLHEP) for the Control Period FY 2018-19 to FY 2020-21 after adjusting for Capitalization on Pro-rata basis considering the approved loan profile as detailed in the table 5.30. The addition of MeECL Interest cost if any shall be accommodated in the True up exercise.

**Table 5.30: Approved Interest and Finance Charges for Control Period MePGCL Old Plants**

(Rs. Crore)

FY 2018-19						
S. No	Source of Loan	Opening Balance	Additions	Repayments	Closing Balance	Amount of Interest
1	12.15 % PFC(NUP)	362.98	-	31.45	331.53	42.19
2	11.00 PFC (Lakroh)	3.92	0.38	-	4.30	0.45
3	Total	366.90	0.38	31.45	335.83	42.64
4	Less Capitalization of Interest on Pro-rata basis	-	-	-	-	15.89
<b>Net Interest</b>						<b>26.75</b>
FY 2019-20						
S. No	Source of Loan	Opening Balance	Additions	Repayments	Closing Balance	Amount of Interest
1	12.15 % PFC(NUP)	331.53		31.45	300.08	38.37
2	11.00 PFC (Lakroh)	4.30	0.42		4.73	0.50
3	Total	335.83	0.42	31.45	304.81	38.87
4	Less Capitalization of interest on Pro-rata basis	-	-	-	-	12.53
<b>Net Interest</b>						<b>26.34</b>
FY 2020-21						
S. No	Source of Loan	Opening Balance	Additions	Repayments	Closing Balance	Amount of Interest
1	12.15 % PFC(NUP)	300.08	-	31.45	268.63	34.55
2	11.00 PFC (Lakroh)	4.73	0.46	-	5.19	0.55
3	Total	304.81	0.46	31.45	27382	35.10
4	Less Capitalization of Interest on Pro-rata basis	-	-	-	-	9.85
<b>Net Interest</b>						<b>25.25</b>

**Commission approves Interest and Finance charges for the Control Period FY 2018-19, FY 2019-20, FY 2020-21 at Rs.26.75Crore , Rs.26.34 Crore, Rs.25.25 Crore respectively.**

## 5.14 O&M Expenses

### Petitioner's Submission

MePGCL has projected O & M Expenses for the Control Period FY 2018-19, FY 2019-20, FY 2020-21 assuming increase of 3% in Basic pay, an increase of 12 % in DA, 6% increase in other allowances, and 3% increase in terminal benefits. Petitioner has claimed R & M expenses and Administration and General Expenses with an inflation rate of 5.50 % over the FY 2016-17. The Licensee has stated that O & M expenses for the Control Period is projected by considering the revised pay of employees effective from January 2015.

The summary of O & M expenses claimed as detailed in the table 5.31.

**Table 5.31: O & M Expenses for MePGCL Old Projects**

S. No	Particulars	(Rs. Cr)			
		FY 2017-18 (Estimated)	FY 2018-19 (Projected)	FY 2019-20 (Projected)	FY 2020-21 (Projected)
1	Employee Expenses	95.47	100.54	106.00	111.87
2	R & M Expenses	9.27	9.78	10.32	10.88
3	A & G Expenses	6.48	6.83	7.21	7.60
4	<b>O &amp; M Expenses for MePGCL</b>	<b>111.22</b>	<b>117.15</b>	<b>123.52</b>	<b>130.35</b>
5	O & M Expenses for MLHEP	31.96	33.79	35.72	37.76
6	<b>O &amp; M Expenses for Old plants</b>	<b>79.26</b>	<b>83.37</b>	<b>87.80</b>	<b>92.59</b>

MePGCL has requested the Commission to approve the O & M expenses as claimed above for the Control Period FY 2018-19, FY 2019-20, FY 2020-21.

### Commission's Analysis

O & M expenses shall mean the total of all the expenditure under the following heads as defined in Regulation 48 of MSERC Regulations 2014.

- a) Employee Cost
- b) Repairs and Maintenance Expenses
- c) Administration and General Expenses

The O & M Expenses in respect of Old Generating plants existed and in operation for 5 years or more in the base years of FY 2007-08 were fixed by the Commission under regulation 55(2) and escalated at 5.72 % as per Regulation 55 (3) year on year after considering 50 % increase in employee cost for FY 2009-10.

The O & M expenses have been normalized and escalated at 5.72 % and fixed at Rs.56.52 Crore for FY 2017-18 in respect of Old Projects excepting Sonapani. The O & M expenses of Sonapani have been fixed at Rs. 0.22 Crore as per Regulation 55 (7) since the COD of the Project was taken place on 27.10.2009. The O & M expenses has been escalated at 5.72 % year on year and fixed at Rs. 0.32 Crore for the FY 2017-18.

Commission considers O & M expenses shall be escalated at 5.72 % over the FY 2017-18 as per Regulation 55 (6) (7) for ARR and tariff for the MYT Control Period FY 2018-19, FY 2019-20, FY 2020-21 as detailed in the table 5.32.

**Table 5.32: Approved O & M Expenses for MePGCL Old Projects**

S. No	Particulars	(Rs. Cr)			
		FY 2017-18	FY 2018-19	FY 2019-20	FY 2020-21
1	MePGCL Old Projects ("A" category station)	56.52	59.75	63.17	66.78
2	Sonapani "C" category station	0.34	0.36	0.38	0.40
		<b>56.86</b>	<b>60.11</b>	<b>63.55</b>	<b>67.18</b>
3	Less :O & M Expenses for MLHEP	-	<b>29.97</b>	<b>31.68</b>	<b>33.49</b>
4	<b>Net O &amp; M expenses for MePGCL admissible</b>	-	<b>30.14</b>	<b>31.87</b>	<b>33.69</b>

**Commission approves O & M expenses of Old Projects including Sonapani for the FY 2018-19, FY 2019-20, FY 2020-21 at Rs. 30.14 Crore, Rs. 31.87 Crore, Rs. 33.69 Crore respectively.**

#### **5.15 Interest on Working Capital**

##### **Petitioner's Submission**

MePGCL has projected Interest on Working Capital against Old Projects including Sonapani for the Control Period FY 2018-19, FY 2019-20, FY 2020-21 as detailed in the table 5.33.

**Table 5.33: Interest on Working Capital for Old Plants**

(Rs. Cr)

Particulars	FY 2017-18 (Estimated)	FY 2018-19 (Projected)	FY 2019-20 (Projected)	FY 2020-21 (Projected)
Operation and Maintenance Expense for One Month	9.27	9.76	10.29	10.86
Maintenance Spares at 15% O&M	16.68	17.57	18.53	19.55
Two Months Receivable of AFC	68.99	68.86	71.14	74.22
Working capital required	94.94	96.19	99.96	104.63
SBI short term PLR	14.05%	14.05%	14.05%	14.05%
Interest on working capital for MePGCL as a whole	13.34	13.52	14.04	14.70
Interest on working capital for MLHEP	6.19	5.93	5.83	5.81
<b>Interest on working capital for Old plants including Sonapani</b>	<b>7.15</b>	<b>7.59</b>	<b>8.21</b>	<b>8.89</b>

MePGCL has requested the Commission to approve the Interest on Working Capital at Rs. 7.59 Crore , Rs. 8.21 Crore and Rs.8.89 Crore for the Control Period FY 2018-19, FY 2019-20, FY 2020-21 respectively for Old plants including Sonapani.

#### Commissions Analysis

Regulation 34 (iii) of MYT Regulations 2014 provides for allowance of Interest on Working Capital for determination of Tariff (AFC) at a rate equal to State Bank Marginal Cost of Funds lending rate as on 1<sup>st</sup> April of the Financial year in which the Petition is filed. The following shall be considered for computation of working capital requirement.

- a) One month O&M expenses
- b) Maintenance spares at 15% of O&M expenses
- c) Two months of receivables( AFC)

Commission considers Interest on Working Capital for the Control Period as detailed in the Table 5.34.

**Table 5.34: Interest on working Capital for MePGCL Old Projects**

(Rs. Cr)

S. No	Particulars	FY 2018-19	FY 2019-20	FY 2020-21
1	O & M Expense for one (1) month	2.51	2.66	2.81
2	Maintenance spares at 15 % of O & M expenses escalated at 6 %	4.79	5.07	5.35
3	Receivable at 2 Months of Fixed Costs	10.39	11.24	11.87
4	Working Capital Requirement	17.69	18.97	20.03
5	Interest on working capital at 14.05 %	2.49	2.67	2.81

Commission approves Interest on working Capital at Rs.2.49 Crore, Rs.2.67 Crore, Rs. 2.81 Crore for FY 2018-19, FY 2019-20, FY 2020-21 respectively for the 2<sup>nd</sup> MYT Control Period for MePGCL Old Plants and Sonapani.

## 5.16 Depreciation

### Petitioner's Submission

MePGCL has projected Depreciation for the Control Period FY 2018-19 to FY 2020-21 for Old Projects including Sonapani and MLHEP at Rs. 75.46 Crore, Rs. 78.73 Crore, Rs 74.25 Crore after adjusting Amortization grants at Rs. 12.04 Crore, Rs. 12.45 Crore , Rs. 30.95 Crore for the FY 2018-19, FY 2019-20, FY 2020-21 respectively as detailed in the table 5.35.

**Table5.35: Depreciation for MePGCL Projected including MLHEP**

(Rs.Crore)					
S. No	Name of the Asset	FY 2017-18 (Estimated)	FY 2018-19 (Projected)	FY 2019-20 (Projected)	FY 2020-21 (Projected)
1	Land		-	-	
2	Buildings	5.43	5.48	5.71	6.62
3	Plant and Equipment	35.30	35.64	37.14	43.09
4	Furniture and Fixtures	0.20	0.20	0.21	0.25
5	Vehicles	0.46	0.46	0.48	0.56
6	Office equipment	0.18	0.18	0.19	0.22
7	Bearer Plants	-	-	-	-
8	Others:	-	-	-	-
a)	Hydraulic Works	39.72	40.10	41.78	48.48
b)	Other Civil Works	4.98	5.03	5.24	6.08
c)	Lines and Cable Network	0.40	0.41	0.43	0.49
10	Assets under lease	-	-	-	-
	<b>Total</b>	<b>86.68</b>	<b>87.51</b>	<b>91.18</b>	<b>105.81</b>
11	Amortization of Grants	12.04	12.04	12.45	30.95
12	<b>Net Depreciation</b>	<b>74.64</b>	<b>75.46</b>	<b>78.73</b>	<b>74.85</b>

**Table 5.36: Depreciation for Old Plants & Sonapani (Projected) excluding MLHEP**

(Rs. Crore)					
S. No	Name of the Asset	FY 2017-18 (Estimated)	FY 2018-19 (Projected)	FY 2019-20 (Projected)	FY 2020-21 (Projected)
1	Depreciation for MePGCL	74.64	75.46	78.73	74.85
2	Depreciation for MLHEP	63.01	63.13	63.24	63.24
3	Depreciation for Old plants including Sonapani	11.62	12.34	15.49	11.62

MePGCL has requested to approve the depreciation for FY 2018-19, FY 2019-20, FY 2020-21 at Rs. 12.34 Crore, Rs 15.49 Crore and Rs. 11.62 Crore after adjusting the Depreciation for MLHEP at Rs. 63.13 Crore, Rs 63.24 Crore, Rs. 63.24 Crore claimed separately for the Control Period.

### Commission's Analysis

Commission had already held that all the old Hydel Projects have served their life as per the stipulations except Umiam Stage – IV (2 X 30 MW) Sonapani ( 1 X 1.5 MW) projects.

The Depreciation claim of MePGCL has been limited to GFA of, Umiam Stage- IV and Sonapani in the tariff Orders for FY 2013-14 dated 30.03.2013.

The Asset value of the above two projects was considered and Depreciation on 90% of asset approved as detailed in table 5.37 in the FY 2013-14 at 5.28%.

**Table 5.37: Depreciation approved for FY 2013-14**

S. No	Particulars	Project Cost	Approved Depreciation for FY 2013-14
1	Umiam Stage- IV	Rs.38.79 Crore	Rs. 1.85 Crore
2	Sonapani	Rs. 10.60 Crore	Rs.0.50 Crore
3	<b>Total</b>	<b>Rs. 49.39 Crore</b>	<b>Rs.2.35 Crore</b>

The Depreciation for the FY 2014-15 was also limited to these projects, in the Provisional True-up. The Asset wise break up was not made available, Commission had considered rate of Depreciation at 5.28 % and computed on 90% of the Asset value as per the Regulations.

MePGCL has not filed true-up petitions along with C & AG audit reports for the FY 2013-14 and FY 2014-15. Commission held that the true up approved was on provisional basis, subject to revision of numbers on filing of C& AG audit reports. Since the Licensee has not filed audited financial statements from FY 2015-16 onwards, Commission considers the original Cost of Fixed Assets (OCFA) data for computation of



Depreciation as approved in FY 2013-14 for Old Projects at Rs. 49.39 Crore being the Project Cost of Umiam Stage IV and Sonapani, the same has been adopted for subsequent years and second control period.

Depreciation has been considered for the projected Capitalization against new projects and for the Asset addition value for Renovation and Modernization of Old existing projects, as approved for the Business Plan. The Licensee has projected Amortization grants at Rs. 12.04 Crore, Rs. 12.45 Crore and Rs. 30.95 Crore during the Control period FY 2018-19, FY 2019-20 and FY 2020-21 respectively. Since Commission has considered the GFA of MePGCL Old-Projects at Rs. 49.39 Crore excluding the value of the projects whose life term is completed, the Amortization grant proposed by the licensee in proportionately reduced from the depreciation to be allowed for ARR for the Control period.

**Table 5.38: Capitalization of Project Wise New Investment for the Control Period**

(Rs.Crore)

S. No	Particulars	FY 2018-19	FY 2019-20	FY 2020-21
1	Umiam Stage-I	-	13.99	15.58
2	Umiam Stage –II	2.64	5.14	1.31
3	Umiam Stage –III	-	-	-
4	Umiam Stage –IV	-	21.53	22.48
5	Umtru HEP	-	22.20	39.50
6	MLHEP Addition of Capitalization	-	4.55 ( admitted in MLHEP)	-
7	Sonapani	-	0.38	-
8	Lakroh MHP	20.48	--	-
9	Umngi	5.69	--	-
10	Selim	7.74	-	-
11	Mawblei	-	7.72	-
12	Nongkohlait	-	-	4.96
13	Umngoi	-	7.20	-
14	Leskha- II	-	7.72	-
15	Solar parks	-	-	12.65
		<b>36.55</b>	<b>90.43</b>	<b>96.48</b>

The Capitalization approved in the business plan against MLHEP during the FY 2019-20 at Rs 4.55Cr, whereas the licensee has projected the capitalization in the FY 2018-19 and the same has been considered by the Commission. **The Licensee shall submit Asset wise break up in the next filing without fail.**

The licensee has projected Amortization grants at Rs 12.04 Cr Rs 12.45Cr and Rs 30.95Cr during the control FY 2018-19 to 2020-21 respectively. Since Commission has considered the GFA of MePGCL Old projects at Rs 49.39 Cr(excluding value of the projects whose life term is completed) the Amortization grant proposed by the licensee is proportionately reduced from the depreciation to be allowed for ARR for the control period as detailed in the tables 5.39.

Table5.39: Approved Depreciation for the FY 2018-19

					(Rs. Crore)
S. No	Particulars	Opening Balance OCFA	Addition during FY 2018-19	Closing Balance	Depreciation
1	Umiam Stage-I	-	-	-	-
2	Umiam Stage –II	-	2.64	2.64	0.06
3	Umiam Stage –III	-	-	-	-
4	Umiam Stage –IV	38.79	-	38.79	1.85
5	Sonapani	10.60	-	10.60	0.50
6	Umtru HEP	-	-	-	-
	<b>Total Old Existing Projctcs</b>	<b>49.39</b>	<b>2.64</b>	<b>52.03</b>	<b>2.48</b>
7	Lakroh MHP	-	20.48	20.48	0.49
8	Umngi	-	5.69	5.69	0.14
9	Selim	-	7.74	7.74	0.18
10	Mawblei	-	-	-	-
11	Nongkohlait	-	-	-	-
12	Umngoi	-	-	-	-
13	Leskha- II	-	-	-	-
14	Solar parks	-	-	-	-
	<b>Total</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>3.22</b>
15	Amortization Grant	-	-	-	(-)1.78
16	Net Depreciation	<b>49.39</b>	<b>36.55</b>	<b>85.94</b>	<b>1.44</b>

Table5.40: Depreciation for the FY 2019-20

					(Rs. Cr)
S. No	Particulars	Opening Balance OCFA	Addition during FY 2018-19	Closing Balance	Depreciation
1	Umiam Stage-I	-	13.99	13.99	0.33
2	Umiam Stage –II	2.64	5.14	7.78	0.25
3	Umiam Stage –III	-	-	-	-
4	Umiam Stage –IV	38.79	21.53	60.32	2.36
5	Sonapani	10.60	0.38	10.98	0.51
6	Umtru HEP	-	22.20	22.20	0.53
7	Lakroh MHP	20.48	-	20.48	0.97
8	Umngi	5.69	-	5.69	0.27
9	Selim	7.74	-	7.74	0.37

S. No	Particulars	Opening Balance OCFA	Addition during FY 2018-19	Closing Balance	Depreciation
10	Mawblei	-	7.72	7.72	0.18
11	Nongkohlait	-	-	-	-
12	Umngoi	-	7.20	7.20	0.17
13	Leskha- II	-	7.72	7.72	0.18
14	Solar parks	-	-	-	-
	<b>Total</b>				<b>6.12</b>
15	Amortization Grant	-	-	-	(-)3.03
16	<b>Net Depreciation</b>	<b>85.94</b>	<b>85.88</b>	<b>171.82</b>	<b>3.09</b>

Table 5.41: Depreciation for the FY 2020-21

(Rs. Cr)

S. No	Particulars	Opening Balance OCFA	Addition during FY 2018-19	Closing Balance	Depreciation
1	Umiam Stage-I	13.99	15.58	29.59	1.03
2	Umiam Stage –II	7.78	1.31	9.09	0.40
3	Umiam Stage –III	-	-	-	-
4	Umiam Stage –IV	60.32	22.48	82.80	3.40
5	Sonapani	10.98	-	10.98	0.52
6	Umtru HEP	22.20	39.00	61.20	1.98
7	Lakroh MHP	20.48	-	20.48	0.97
8	Umngi	5.69	-	5.69	0.27
9	Selim	7.74	-	7.74	0.37
10	Mawblei	7.72	-	7.72	0.37
11	Nongkohlait	-	4.96	4.96	0.12
12	Umngoi	7.20	-	7.20	0.34
13	Leskha- II	7.72	-	7.72	0.37
14	Solar parks	-	12.65	12.65	0.30
	<b>Total</b>	-	-	-	<b>10.44</b>
15	Amortization Grant	-	-	-	(-)8.29
16	<b>Net Depreciation</b>	<b>171.82</b>	<b>95.98</b>	<b>267.80</b>	<b>2.15</b>

Table 5.42: Depreciation approved for the Control Period for MePGCL old Projects

(Rs. Cr)

	FY 2018-19	FY 2019-20	FY 2020-21
Projected by MePGCL	12.34	15.49	11.62
Approved by the Commission	1.44	3.09	2.15

Commission approves Depreciation for old projects and further Capitalized Assets at Rs. 1.44 Crore, Rs. 2.56 Crore, Rs. 1.73 Crore for the Control Period FY 2018-19, FY 2019-20, FY 2020-21 respectively after adjusting Amortization grants proportionately.

### 5.17 Provision for Bad Debts

#### **Petitioners Submission**

MePGCL has stated that huge receivables are pending from MePDCL as also provided in the audited statement of Accounts for FY 2015-16. As per accounting policies MePGCL has projected a bad debt of Rs. 25 Crore each year for the Control period. The same can be adjusted or revised during truing up for subsequent years. MePGCL has requested the Commission to approve the bad debt as mentioned above for the 2<sup>nd</sup> Control period.

#### **Commission's analysis**

There is no provision to allow Bad debts as expense for determination of Generation ARR and Annual Fixed Charges in the Regulations.

Regulation 37, provides for a claim of 1.25 % late payment surcharge where the payment of bills of Generation tariff by the beneficiaries delayed beyond a period of 30 days. **Commission does not consider the claim of Bad debts as expense.**

### 5.18 SLDC Charges

#### **Petitioner's Submission**

MePGCL has projected SLDC cost for the Control period FY 2018-19, FY 2019-20, FY 2020-21 at Rs. 2.42 Crore, Rs. 2.54 Crore, Rs. 2.66 Crore respectively.

#### **Commission's analysis**

As per the Regulation 42 SLDC Cost shall be payable to Transmission utility as expense.

**The SLDC Cost claimed by MePGCL is approved at Rs. 1.21 Crore, Rs. 1.27 Crore, Rs. 1.33 Crore being the 50 % of the estimated charges for the Control period for determination of ARR and tariff.**

### 5.19 Non-Tariff Income

#### **Petitioner's submission**

MePGCL has submitted that as per the statement of Accounts for FY 2016-17, the Non-Tariff Income estimated for the Control Period at Rs. 13.13 Crore, Rs. 14.45 Crore,

Rs,15.88 Crore excluding the MLHEP receipts for FY 2018-19, FY 2019-20 and FY 2020-21 respectively as detailed in the table5.43.

**Table 5.43: Non-Tariff Income for MePGCL Old Projects**

Particulars	(Rs. Cr)			
	FY 2017-18 (Estimated)	FY 2018-19 (Projected)	FY 2019-20 (Projected)	FY 2020-21 (Projected)
Non-Tariff Income for MePGCL Old plants	11.96	13.16	14.48	15.92
Non-Tariff Income for MLHEP	0.0310	0.0341	0.0375	0.0412
Non-Tariff Income for Old Plants & Sonapani	11.93	13.13	14.45	15.88

### Commission's Analysis

Commission considers projected Non-Tariff Income for the Control Period at Rs. 13.13 Crore, Rs.14.45 Crore, Rs.15.88 Crore for the FY 2018-19, FY 2019-20, FY 2020-21 respectively.

### 5.20 ARR and Annual Fixed Charges for Control period FY 2018-19 to FY 2020-21

Commission after prudence check of the Petition filed by MePGCL has considered the ARR for the 2<sup>nd</sup> MYT Control period FY 2018-19, FY 2019-20, FY 2020-21 as depicted in the tables below separately for MLHEP and MePGCL Old stations including Sonapani.

**Table 5.44: Approved Annual Fixed Charges for MePGCL Old Projects**

Sl. No	ARR Element	As Filed by MePGCL			Approved by Commission		
		FY 2018-19	FY 2019-20	FY 2020-21	FY 2018-19	FY 2019-20	FY 2020-21
		(Rs. Cr)					
1	Interest and Finance Charges	33.28	43.80	57.20	26.75	26.34	25.25
2	Depreciation	12.34	15.49	11.62	1.44	3.09	2.15
3	O & M expenses	83.37	87.80	92.59	30.14	31.87	33.69
4	Interest on Working Capital	7.59	8.21	8.89	2.49	2.67	2.81
5	Return on Equity	58.50	61.56	70.11	2.84	5.41	9.23
6	SLDC Charges	1.21	1.27	1.33	1.21	1.27	1.33
7	Net Prior Period Items	25.00	25.00	25.	-	-	-
8	Gross annual fixed charges	221.29	243.13	266.73	64.87	70.65	74.46
9	Less Non Tariff Income	13.13	14.14	15.8	13.13	14.45	15.88
10	Net Annual Fixed Charges	208.16	228.69	250.85	51.74	56.20	58.58

Table 5.45: Approved Annual Fixed Charges for MLHEP

(Rs. Cr)

Sl. No	ARR Element	As Filed by MePGCL			Approved by Commission		
		FY 2018-19	FY 2019-20	FY 2020-21	FY 2018-19	FY 2019-20	FY 2020-21
1	Interest and Finance Charges	49.27	40.50	34.81	29.22	24.77	22.20
2	Depreciation	63.13	63.24	63.24	55.07	55.18	55.18
3	O & M expenses	33.79	35.72	33.76	29.97	31.68	33.49
4	Interest on Working Capital	5.93	5.83	5.81	4.80	4.79	4.83
5	Return on Equity	53.74	53.75	53.75	46.91	46.93	46.93
6	SLDC Charges	-	-	-	-	-	-
7	Net Prior Period Items	-	-	-	-	-	-
8	Gross annual fixed charges	205.85	199.04	195.37	165.97	163.35	162.63
9	Less Non Tariff Income	0.03	0.04	0.04	0.03	0.04	0.04
10	Net Annual Fixed Charges	205.82	199	195.33	165.94	163.31	162.59

Table 5.46: Annual Fixed Charges (ARR) for MePGCL ( MLHEP&amp; Old Plants) Approved

Sl. No	Particulars	FY 2018-19		FY 2019-20		FY 2020-21		Total		
		MLHEP	MePGCL Old Plants	MLHEP	MePGCL Old Plants	MLHEP	MePGCL Old Plants	FY 2018-19	FY 2019-20	FY 2020-21
1	Interest and Finance Charges	29.22	26.75	24.77	26.34	22.20	25.25	55.97	51.11	47.45
2	Depreciation	55.07	1.44	55.18	3.09	55.18	2.15	56.51	58.27	57.33
3	O & M expenses	29.97	30.14	31.68	31.87	33.49	33.69	60.11	63.55	67.18
4	Interest on Working Capital	4.80	2.49	4.79	2.67	4.83	2.81	7.29	7.46	7.64
5	Return on Equity	46.91	2.84	46.93	5.41	46.93	9.23	49.75	52.34	56.16
6	SLDC Charges	-	1.21	-	1.27	-	1.33	1.21	1.27	1.33
7	Net Prior Period Items	-	-	-	-	-	-	-	-	-
8	Gross annual fixed charges	165.97	64.87	163.31	70.65	162.60	74.04	230.84	233.00	237.09
9	Less Non Tariff Income	0.03	13.13	0.04	14.45	0.04	15.88	13.16	14.49	15.92
10	Net Annual Fixed Charges	165.94	51.74	163.27	56.20	162.56	58.16	217.68	219.51	221.17

**Table 5.47: Plant wise Annual Fixed Cost allocated for each power station during the control period.**

Sl.no	Particulars	Capacity (MW)	Approved AFC (Rs. Crores)		
			2018-19	2019-20	2020-21
1	Umiam Stage I	36	4.71	5.67	6.35
2	Umiam Stage II	20	2.61	3.15	3.53
3	Umiam Stage III	60	7.84	9.45	10.49
4	Umiam Stage IV	60	7.84	9.45	10.49
5	Umtru Power Station	11.2	1.79	1.89	2.00
6	Sonapani	1.5	0.20	0.24	0.26
<b>7</b>	<b>Total Old Stations</b>	<b>188.70</b>	<b>24.99</b>	<b>29.86</b>	<b>33.32</b>
8	MLHEP	126	165.94	163.27	162.59
9	New Umtru	40	26.30	26.00	24.86
10	Lakroh	1.5	0.45	0.34	0.39
<b>11</b>	<b>Total</b>	<b>356.20</b>	<b>217.68</b>	<b>219.51</b>	<b>221.17</b>

**Determination of Annual Fixed charges for the FY 2018-19 for MePGCL Old Plants & MLHEP**

Commission after prudent check of the petition filed by MePGCL as also additional data provided for the queries raised, has determined ARR and Annual Fixed Charges for the Generation Stations existing for the FY 2018-19. The License shall recover the Annual Fixed Charges from the beneficiary as allocated plant wise in the table 5.48.

Commission after prudent check of the petition filed by MePGCL as also data provided for the queries raised, has determined ARR and Annual Fixed Charges for Generation Stations existing for the FY 2018-19. The Licensee shall recover the Annual Fixed Charges from the beneficiary as allocated plant wise AFC in the table 5.48.

**Table 5.48: Annual Fixed Charges for the FY 2018-19**

S. No	Name of the Plant	Installed Capacity (MW)	Designed Energy (MU)	AFC Allocation (Rs. Cr)	50 % as capacity charges (Rs. Cr)	50 % as energy charges	Average Tariff Rs. Ps/ kWh
1	Umiam Stage I	36	116.29	4.71	2.355		0.41/kWh
2	Umiam Stage II	20	45.51	2.61	1.30		0.60/kWh
3	Umiam Stage III	60	139.40	7.84	3.92		0.56/kWh
4	Umiam Stage IV	60	207.50	7.84	3.92		0.38/kWh

S. No	Name of the Plant	Installed Capacity (MW)	Designed Energy (MU)	AFC Allocation (Rs. Cr)	50 % as capacity charges (Rs. Cr)	50 % as energy charges	Average Tariff Rs. Ps/ kWh
5	Umtru (MePGCL has proposed that no power shall be generated from Umtru Power Plant)	11.2	-	1.79	To be claimed in 12 monthly installments.		-
6	Sonapani	1.5	5.50	0.20	0.10		0.36/kWh
7	<b>Total Old Stations</b>	188.70	514.20	24.99	12.49		
8	MLHEP	126	486.23	165.94	82.97		3.41 kwh
9	New Umtru	40	180.94	26.47	13.24		1.46 kwh
10	Lakroh	1.5	11.01	0.28	0.14		0.25 kwh
11	<b>Total</b>	<b>356.20</b>	<b>1192.38</b>	<b>217.68</b>	<b>108.84</b>		-

**5.20.1** (i) MePGCL shall claim 50 % of the annual fixed charges in 12 monthly installments from the beneficiary MePDCL.

(ii) Energy charges shall be claimed for actual generation during the month as per Average tariff in the above table.

(iii) The annual fixed charges for Umtru project is allowed towards O & M expenses since the MePGCL has stated tha the plant has been kept idle for renovation and modernization. Fixed charges allowed at Rs. 1.79 Crore shall be claimed in 12 monthly installments.

(iv) Annual fixed charges allowed in the ARR in respect of New Umtru HEP and Lakroh HEP is towards interest and finance charges on the borrowings enabling the Licensee to discharge the liability. No other charges are allowed for annual fixed charges for these projects since final tariff of the plants has yet to be approved by the Commission.

MePGCL has projected Power Generation from these plants.

(v) MePDCL also projected Energy availability from New Umtru and Lakroh plants of MePGCL.

(vi) No power generation is projected from GANOL project by MePGCL but the energy availability projected by MePDCL has been priced at average MePGCL unit rate Rs. 1.90 ps/KWH for FY 2018-19



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## 6. Directives

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### 6.1 Directives

#### 1. Filing of Petition for New Umtru and Lakroh

MePGCL shall file the petition for approval of final tariff with all the required data for New Umtru and Lakroh projects expeditiously.

#### 2. Financial statements of Accounts:

The Commission directs MePGCL to get the accounts audited by C & AG from FY 2013-14 up to FY 2016-17 and submit petition for true up of the Business Plan and to appropriate the losses/ gains.

#### 3. Control of Expenditures

The Commission directs MePGCL to prepare an annual budget for FY 2018-19 for every plant and submit the same to the Commission within one month of the issuance of this Order to enable it to monitor that expenses are controlled within the provision of ARR & Tariff Order. A directive to this effect had also been issued by the Commission in the Tariff Order dated 31/3/17, but has not been complied with. Non-compliance of this directive within the time frame indicated will be taken very seriously by the Commission, and may entail action as considered appropriate by the Commission.

#### 4. Assets Records

The Licensee is directed to maintenance Assets records. Since all the Old plants have served their life, allowing RoE and depreciation on those assets would result in excess recovery of costs and tariffs. The asset records shall be duly verified as per the Regulations and ensure to delete the value of non – performing assets from the asset base in the books for the purpose of calculation of RoE and Depreciation. A directive to this effect had also been issued by the Commission in its Tariff Order dated 31/3/17, but the MePGCL had not complied with the Directive .The Licensee shall submit a report by June 2018.

**4.1** MePGCL is directed to maintain separate asset records of MLHEP and submit to the Commission by June 2018.

**4.2** MePGCL shall arrange for Audit of Accounts for MLHEP separately from FY 2013-14

onwards.

**5. Asset wise Breakup**

Asset wise Break up for existing plants and New Investments capitalized shall be furnished along with next petition.

6. The Commission is constrained to note that the MePGCL has not been complying with some of the directions issued by the Commission in its Tariff Orders. The Commission takes this opportunity to advise the MePGCL to henceforth take all orders and Directions issued with the utmost seriousness. In the past, the MePGCL has not only failed to comply, but has even failed to indicate the reasons for its inability to do so , which could have been taken into consideration by the Commission, whether a relook at the directions issued is necessary, or whether advice on the matter could be given by it. Failure to comply with the directions issued by the Commission may entail strict action as per provisions of Law.

**Annexure-I**

**RECORD NOTE OF THE 21<sup>ST</sup> MEETING OF THE STATE ADVISORY COMMITTEE HELD ON 15<sup>TH</sup> FEBRUARY 2018 AT THE MSERC CONFERENCE HALL, SHILLONG.**

Present:-

- 1 Shri. W.M.S. Pariat, Chairman Meghalaya State Electricity Regulatory Commission.
- 2 Shri P.W. Ingty, IAS Additional Chief Secretary, Food & Civil Supplies etc.

Government of Meghalaya

- 3 Shri J.B. Poon, Secretary Meghalaya State Electricity Regulatory Commission.
- 4 Shri. U N Madan, Director, MNREDA
- 5 Shri. K.W. Sohlang Engineer (Tariff), MSERC
- 6 Shri. Rangstone Paul Kurbah, Research Asstt., MSERC

**From Meghalaya Energy Corporation Limited.**

- 1 Shri. P.Sahkhar, Superintending Engineers (RA), MePDCL.
- 2 Shri S.B. Nath Superintending Engineers (Elect-II), MePTCL
- 3 Shri. A. Lyngdoh, Superintending Engineers (Civil), MePGCL.

**Consultants of MeECL**

- 4 Shri. Sanket Samantray Consultant, PWC
- 5 Shri. Krshtij Dhingre, Consultant, PWC.
- 6 Shri. Piyush Lohia, Consultant, PWC.

**Calling the 21<sup>st</sup> Meeting** of the state Advisory Committee (SAC) to order, the Chairman welcomed the members present. He briefly introduced the members and told about the purpose of the meeting as envisaged in the Electricity Act 2003. He also briefed the members on the present MSERC, MYT Regulations 2014 and implications of each of the component of ARR in the Tariff. Members of the Advisory committee were briefed that the Commission has admitted ARR petition for Distribution, Transmission and Generation on 04.12.2017. The utilities had published the salient features of this petition inviting comments of each stakeholders including public. On the ARR & Tariff Petition for the year 2018-19, the Chairman called upon the Hon'ble Members to participate in the

deliberations and put forward their suggestions. Chairman then requested regulatory officers of Generations, Transmission and Distribution companies to make the presentation.

Sd/-  
(J.B.Poon)  
**Secretary, MSERC.**

**Annexure-II**

**List of the Objectors**

**1. Name & Address**

**M/s Byrnihat Industries Association (BIA)  
13th Mile, Tamulikuchi, Byrnihat,  
RiBhoi District, Nongpoh,  
Meghalaya-793 101.**

**2. Greater Shillong Crematorium & Mortuary Society**

**Shillong Electric Crematorium Complex  
T.B. Hospital Road, Jhalupara, Shillong  
Meghalaya**

**3. Green Valliey Industries Limited**

**Nongsning  
Jaintia Hills District  
Meghalaya 793200**